

**Management
Policies and Guidelines
for
National Wildlife Refuges
in
Alaska
(Draft)**

June 2006



U.S. Fish and Wildlife Service Mission Statement

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.



Refuge Mission Statement

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

—National Wildlife Refuge System Improvement Act of 1997

NWRS706-246.lk

Dear Reader:

Enclosed for your review in “stand alone” format are revised draft management policies and guidelines for National Wildlife Refuges in Alaska. This document is updated from previous versions to comply with current law and policies, and to take advantage of experience acquired while working on the revised Alaska Peninsula/Becharof and Kodiak National Wildlife Refuge comprehensive conservation plans. To facilitate your review, please note that text from previous versions that is to be deleted is shown in ~~strikeout mode~~, while new text is underlined.

The Alaska Region is updating procedures for revising the comprehensive conservation plans first prepared approximately 20 years ago. Completion of these management guidelines (formerly known as the “template”) is one element of a multi-faceted effort to streamline planning to meet our goal of revising all refuge plans in Alaska by 2012. These guidelines do not establish new policy or direction, but rather interpret how existing laws, regulations, and policies are implemented on National Wildlife Refuges in Alaska. They will provide a solid foundation for the remaining refuge comprehensive conservation plan revisions. While these management policies and guidelines will be incorporated into the remaining plans by reference, the “stand alone” document itself will also be included as either a separate chapter or appendix.

It is important to note that individual refuges have the opportunity to vary certain aspects of these management guidelines in their refuge plans. When refuge-specific conditions or enabling legislation create cause for variation, an individual refuge plan may adjust the management direction, as appropriate, based on documented rationale. Providing clear baseline guidance with the opportunity for flexibility offers several benefits, specifically:

- application of a common direction on issues of region-wide significance,
- latitude to make refuge-specific changes when they can be justified, and
- public review planning documents that focus on refuge-specific issues of interest.

Comments should be e-mailed or postmarked by August 15, 2006, to: Ms. Helen Clough, U.S. Fish and Wildlife Service, 1011 East Tudor Road – MS 231, Anchorage, Alaska 99503-6199, helen_clough@fws.gov or by phone at (907) 780-1169.

The draft management guidelines may also be downloaded electronically at:
<http://alaska.fws.gov/nwr/planning/plans.htm>.

Enclosure

Contents

Contents.....	i
Introduction	1
1. Management Categories	2
1.1 Intensive Management	2
1.2 Moderate Management	3
1.3 Minimal Management.....	3
1.4 Wild and Scenic Rivers.....	4
1.5 Wilderness	5
1.6 Special Management.....	6
1.6.1 Management of Selected Lands.....	6
1.6.2 Alaska Native Claims Settlement Act Section 22(g).....	6
2. Management Policies and Guidelines.....	7
2.1 Management Emergencies	7
2.2 Land Exchanges and Acquisitions	8
2.3 Land Conservation Planning.....	8
2.4 Compatibility Determinations.....	9
2.5 Mitigation.....	10
2.6 Coastal Zone Consistency.....	11
2.7 Cooperation and Coordination with Others	11
2.7.1 Federal, State and Local Governments	11
2.7.2 Tribes and Native American Organizations	13
2.7.3 Owners of Refuge Inholdings and Adjacent Lands	13
2.7.4 Fish and Wildlife Service Jurisdiction over Waters within Refuges	13
2.7.5 Other Constituencies.....	14
2.8 Ecosystem and Landscape Management	14
2.8.1 Air Quality	14
2.8.2 Water Resources (Hydrology) Management	15
2.8.3 Visual Resource Management	16
2.8.4 Cultural, Historical, and Paleontological Resources	16
2.9 Fish and Wildlife Habitat Management	18
2.9.1 Habitat Management.....	18
2.9.2 Fire Management.....	19
Wildland Fire Suppression.....	19
Wildland Fire Use	20
Prescribed Fire	20
2.9.3 Weed Control (Pest and Nonnative Plant Management).....	20
2.10 Fish and Wildlife Population Management	20
2.10.1 Wildlife Inventory and Monitoring Plan	21
2.10.2 Scientific Peer Review.....	21
2.10.3 Compliance with the Animal Welfare Act	21
2.10.4 Marking and Banding	22
2.10.5 Threatened or Endangered Species.....	22
2.10.6 Introductions and Reintroductions.....	22
2.10.7 Fish and Wildlife Control	23
2.10.8 Nonnative Species Management.....	23
2.10.9 Fish and Wildlife Pest Management and Disease Prevention and Control	24

2.10.10	Fishery Restoration	24
2.10.11	Fishery Enhancement	24
2.11	Subsistence Use Management	25
2.11.1	Access for Subsistence Purposes.....	26
2.11.2	Section 810 Evaluations	26
2.12	Public Access and Transportation Management	26
2.12.1	Snowmachines, Motorboats, Airplanes, and Nonmotorized Surface Transportation	26
2.12.2	Off-Road Vehicles	27
2.12.3	Helicopters	27
2.12.4	Access to Inholdings	27
2.12.5	Temporary Access.....	27
2.12.6	Subsistence Access.....	28
2.12.7	Transportation and Utility Systems.....	28
2.12.8	State Transportation Planning	29
2.12.9	RS 2477 Rights-of-Way	29
2.12.10	17(b) Easements.....	29
2.12.11	Navigation Aids and other Facilities	30
2.13	Recreation and Other Public Use	30
2.14	Outreach	31
2.14.1	Other Outreach Activities	32
2.15	Recreation Facilities	32
2.15.1	Cabins.....	32
2.15.2	Temporary Facilities	32
2.16	Commercial-Use Management.....	33
2.16.1	Mineral Exploration and Development.....	34
	Oil and Gas Assessment	34
	Oil and Gas Leasing	34
	Sand, Gravel, and Other Common Variety (Saleable) Minerals	34
	Other Mineral Leasing.....	34
	Alaska Mineral Resource Assessment Program.....	35
2.16.2	Commercial Recreation Services	35
2.16.3	Commercial Fishing and Related Facilities	36
2.16.4	Commercial Harvest of Timber and Firewood	36
2.16.5	Commercial Gathering of Other Resources	36
2.16.6	Commercial Filming and Recording Activities	36
2.16.7	Other Commercial Uses	37
2.17	Environmental Contaminants Identification and Cleanup.....	37
2.18	Management of Designated Wilderness.....	37
2.19	Administration of National Wildlife Refuge.....	39
2.19.1	Administrative Sites and Visitor Facilities.....	39
	Applicability of Refuge Regulations to Off-Refuge Administrative and Visitor Facility Sites	40
2.19.2	Refuge Management Plans.....	40
3.	Management Categories Table.....	40
3.1	Explanatory Notes	40
3.2	Key for Management Categories Table.....	40
4.	References	58
5.	Abbreviations and Acronyms Used.....	59

Introduction

This document presents an overview of the management direction for national wildlife refuges in Alaska. The primary sources of this management direction are the laws governing the National Wildlife Refuge System and the regulations, policies, and other guidance, both national and regional, developed to implement these laws. Although each refuge is unique, it is only one piece of this system. The management direction presented here represents the common base for management of the Alaska refuges and identifies appropriate ~~these~~ sideboards ~~within which~~ for management of individual refuges ~~must remain~~.

This management direction will be incorporated by reference into each revised comprehensive conservation plan (conservation plan) and will be included in each plan as a 'stand alone' chapter or appendix. ~~the intent is to apply incorporate this management direction to each refuge~~, In addition, each conservation plan will include ~~add~~ pertinent refuge-specific information where appropriate, and adjust the management direction when necessary (i.e., specific direction in law such as for reindeer grazing on Selawik and Yukon Delta refuges or specific ~~identifiable~~ existing conditions or resource concerns that can be documented).

Some deviations from these region-wide management policies and guidelines are likely to appear in each conservation plan given differing establishing orders or refuge purposes. Any refuge-specific departures will be clearly described, along with supporting rationale, in each revised conservation plans.

This document contains the following:

- Descriptions of the management categories and their associated general management intent.
- The common management direction as interpreted from existing laws, regulations, policies, guidance, etc.
- Discussions of what and where refuge-specific information should be incorporated into individual refuge comprehensive conservation plans.

The management category descriptions are not the same as those from the previous (1980s) round of conservation plans. ~~Also, unlike those of the previous conservation plans, in which the descriptions evolved over the course of the planning process.~~ These management category descriptions will remain constant in for all the plans unless a well-justified exception is warranted as described above. ~~granted in writing by the regional chief of refuges.~~

Until a final revised comprehensive conservation plan is adopted for a refuge, if there is any conflict between the existing refuge plan and these management guidelines, the direction in the existing plan will take precedence over that contained in these guidelines, unless the

conflict is the result of changes in law, judicial rulings, or other non-discretionary guidance.

~~Informational notes discussing refuge specific management direction that needs to be incorporated into individual refuge plans are found in italic, hidden type.~~

Management Categories

Five management categories, ranging from Intensive Management to designated Wilderness, are used to describe management levels throughout the refuges in Alaska. A management category is used to define the level of human activity appropriate to a specific area of the refuge. It is a set of refuge management directions applied to an area, in light of its resources and existing and potential uses, to facilitate management and the accomplishment of refuge purposes and goals. The Management Activities Table shows those management activities, public uses, commercial uses, and facilities that may be allowed in each management category and under what conditions.

1.1 Intensive Management

This category is designed to allow compatible management actions, public facilities, and commercial activities that may result in alterations to the natural environment. In Intensive Management areas, the presence of human intervention may be very apparent. Roads, buildings, and other structures are likely to be seen. Intensive Management is applied to the smallest area reasonable to accommodate the intended uses. When Intensive Management is proposed for an area, the specific purposes for its establishment will be described.

Natural processes or habitats may be modified through human intervention. Habitats may be highly modified to enhance conditions for one or more animal species. For example, water regimes may be artificially controlled to improve habitat for waterfowl.

High levels of public use may be accommodated and encouraged through modifications to the natural environment such as paving, buildings, developed campgrounds, and other facilities that could alter the natural environment in specific areas. Public facilities are designed to provide a safe and enjoyable experience of the natural environment and an increased understanding of refuge resources for a wide range of visitors. Facilities accommodate a large number of visitors while protecting refuge resources from damage through overuse.

Compatible commercial uses of refuge resources that result in alterations to the natural environment may be authorized in Intensive Management areas. All economic uses are subject to the

compatibility standard, must contribute to the purposes of the refuge, and require official authorizations such as special use permits.

1.2 Moderate Management

Moderate Management is meant to allow compatible management actions, public uses, commercial uses, and facilities that may result in changes to the natural environment that are temporary, or permanent, but small in scale and that do not disrupt natural processes. The natural landscape is the dominant feature of Moderate Management areas although signs of human actions may be visible.

Management actions in the category of Moderate Management will focus on maintaining, restoring, or enhancing habitats to maintain healthy populations of plants and animals where natural processes take over. For example, logging, tree-crushing, and prescribed burning may be used to convert mature forests to earlier native seral stages to enhance browse for moose. In general, management facilities, both temporary and permanent, will be allowed for the purposes of gathering data needed to understand and manage resources and natural systems of the refuge. Structures will be designed to minimize overall visual impact.

Public facilities provided in Moderate Management will, while protecting habitats and resources, allow the public to enjoy and use refuge resources in low numbers over a large area or they will encourage the short-term enjoyment of the refuge in focused areas. The emphasis is on small facilities that encourage outdoor experiences. Facilities such as public use cabins, rustic campgrounds, kiosks, viewing platforms, trails, and toilets may be provided. Facilities will be designed to blend with the surrounding environment.

Compatible economic activities may be allowed where impacts to natural processes and habitats are temporary (e.g., small-scale logging where an earlier seral stage meets management goals; facilities in support of guiding and outfitting services such as tent platforms or cabins that encourage enhanced public use). All economic activities and facilities require authorizations such as special use permits.

1.3 Minimal Management

Minimal Management is designed to maintain the natural environment with very little evidence of human-caused change. Habitats should be allowed to change and function through natural processes. Administration will ensure that the resource values and environmental characteristics identified in the conservation plan are conserved. Management actions that change existing habitats should be designed and implemented so that a natural appearance is maintained. Public uses, economic activities, and facilities should minimize disturbance to habitats and resources. Ground-disturbing activities are to be avoided whenever possible.

Management actions in this category focus on understanding natural systems and monitoring the health of refuge resources. Generally, no permanent structures are allowed (except cabins). Temporary structures may be allowed in situations in which removal is planned after the period of authorized use and the site can be rehabilitated using plants native to the immediate area. Existing cabins may be allowed for administrative, public-use, subsistence, or commercial or economic (e.g., guiding) purposes. New subsistence or commercial cabins may be authorized if no reasonable alternative sites exist. Public-use or administrative cabins may be constructed if necessary for health and safety.

Public use of the refuge for wildlife-dependent recreation and subsistence activities is encouraged. Public-use facilities are not generally provided. Mechanized and motorized equipment may be allowed when the overall impacts are temporary or where its use furthers management goals.

If a transportation or utility system, as defined in Section 1102 of ANILCA, is proposed to cross an area in Minimal Management, the authorization process would incorporate a corresponding conservation plan amendment to change the management category in the affected area from Minimal Management to Moderate or Intensive management as appropriate.

Compatible economic activities may be allowed where the evidence of those activities does not last past the season of use, except as noted in the preceding discussion of cabins. The primary economic activities are likely to be guiding and outfitting of recreation activities such as hunting, fishing, hiking, river floating, and sightseeing. All economic activities and facilities require authorizations such as special use permits.

1.4 Wild and Scenic Rivers

The Wild and Scenic Rivers category applies to those rivers and corridors of the adjacent lands that have been designated by Congress as part of the Wild and Scenic Rivers System. This is a national system of designated rivers that possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. All designated rivers on refuges in Alaska are classified as Wild Rivers. Wild Rivers are those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and waters unpolluted.

Within this management category, water bodies are maintained in natural, free-flowing, and undisturbed conditions. Emphasis is placed on maintaining the natural function of the river system, and the appearance and sense of wildness are preserved. Evidence of human activities is minimal. Each river within the system has particular values for which it was designated; the management of a Wild River must protect those specific values. Management actions focus on

understanding, monitoring, and maintaining the resources, natural ecosystem function, and aesthetics of the river corridor.

Permanent structures generally are not allowed, with the exception of historic and cultural resources and, in certain limited circumstances, subsistence or administrative cabins and associated structures. Cabins, temporary structures, and hardened sites will be visually shielded from the river wherever possible. Where shielding is not practical, facilities and structures are as rustic or unobtrusive in appearance as possible. Public-use facilities would provide opportunities for primitive recreation experiences.

Compatible uses of a Wild River corridor will be allowed where those activities do not detract from the values for which the corridor was designated. Primary commercial uses are likely to be recreation services such as guided float, sightseeing, fishing, and hunting trips. A variety of management actions may be taken to maintain the values and classification of the corridor. All commercial activities and facilities require authorizations such as special use permits.

1.5 Wilderness

This category applies only to areas designated by Congress as units of the National Wilderness Preservation System; areas proposed for Wilderness designation will be managed under Minimal Management, consistent with Alaska National Interest Lands Conservation Act (ANILCA) 1317(c) and Service policy. Designated Wilderness will be managed under the Wilderness Act of 1964 and the exceptions provided by ANILCA. Because Wilderness units are part of a nationwide, multi-agency system, the Service recognizes that responsibilities for managing refuge Wilderness go beyond the mission of the Service and that the purposes of the Wilderness Act are within and supplemental to the other purposes for which individual refuges were established.

The history and intent behind the Wilderness Act make Wilderness more than just another category of land management. Wilderness encourages having a broadened perspective of the refuge landscape, one that extends beyond managing it solely as wildlife habitat. Wilderness is managed as an area “retaining its primeval character and influence.” In addition, Wilderness provides human visitors with opportunities for solitude and primitive recreation, which may be characterized in terms of experiential dimensions such as discovery, self-reliance, and challenge.

Wilderness Areas are managed to preserve their experiential values as well as aesthetic, scientific, and other related values. Research has shown that some values of Wilderness extend beyond their boundaries to people who may never visit but who benefit from the protection of natural ecological processes-benefits such as clean air and water and the simple knowledge that such places exist. In managing Wilderness, managers are encouraged to consider in

decision-making these off-site and symbolic values as well as tangible resource values.

Permanent structures are generally prohibited; examples of exceptions are historic and cultural resources and, in certain circumstances, administrative structures or cabins that predate ANILCA, cabins that are necessary for trapping, and public use cabins necessary for the protection of human health and safety. Facilities and structures are rustic and unobtrusive in appearance.

Compatible commercial uses of Wilderness Areas are generally limited to those activities that facilitate enjoyment of the areas (e.g., guided fishing, hunting, and wilderness trips). All commercial activities and facilities require authorizations (e.g., special use permits).

A variety of management actions may be taken to maintain the wilderness values of the area. Actions such as prescribed fires or invasive-species control may be conducted when it is necessary to protect life or property or when it is necessary to restore, maintain, or protect wilderness values.

1.6 Special Management

Special Management lands are managed within one of the categories described previously but have additional requirements because of their status. An example of a Special Management area would be Research Natural Areas.

1.6.1 Management of Selected Lands

The Service retains management responsibility for lands selected but not yet conveyed to Native village and regional corporations or to the State of Alaska. The appropriate Native corporation or agency of the State of Alaska will be contacted and its views considered prior to ~~implementing a management program or~~ issuing a permit involving these lands. Fees collected for special use or right-of-way permits will be held in escrow until the selected lands are conveyed or relinquished. Management directions for these lands will be the same as for adjacent refuge lands.

1.6.2 Alaska Native Claims Settlement Act Section 22(g)

Section 22(g) of the Alaska Native Claims Settlement Act (ANCSA) provides that those refuge lands established prior to December 18, 1971, that are conveyed under that act remain subject to the laws and regulations governing the use and development of the refuge. Activities occurring on these lands are subject to the compatibility standard, as described in 50 CFR 25.21(b)(1). In addition, the Service retains the right of first refusal on village corporation lands if these lands are ever offered for sale.

~~The~~ Refuges will work with ~~the~~ landowners to balance the commercial development and use of 22(g) lands with the protection of resources important to ~~the~~ refuge purposes. ~~of the Refuge~~.

2. Management Policies and Guidelines

Refuge management ~~of the refuge~~ is governed by federal laws such as the National Wildlife Refuge System Administration Act of 1966 (Refuge Administration Act; 16 U.S.C. 668dd), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Refuge Improvement Act; P.L. 105-57), and ANILCA; by regulations implementing these laws; by treaties; by Service policy; and by principles of sound resource management—which establish standards for resource management or limit the range of potential activities that may be allowed on ~~the~~ a refuge.

The ANILCA authorizes traditional activities such as subsistence, the exercise of valid commercial fishing rights, hunting, fishing, and trapping in accordance with state and federal Laws. Under Service regulations implementing this direction, “[p]ublic recreation activities within the Alaska National Wildlife Refuges are authorized as long as such activities are conducted in a manner compatible with the purposes for which the areas were established” (50 CFR 36.31(a)). Such recreation activities include but are not limited to, sightseeing, nature observations and photography, hunting, fishing, boating, camping, hiking, picnicking, and other related activities. The Refuge Administration Act, as amended by the National Wildlife Refuge System Improvement Act of 1997, defines “wildlife-dependent recreation” and “wildlife-dependent recreational use” as “hunting, fishing, wildlife observation and photography, or environmental education and interpretation” (16 U.S.C. § 668ee). These uses are encouraged and will receive emphasis in management of ~~the public’s~~ use ~~of the~~ on refuges.

Under all the action alternatives ~~being~~ that are considered, refuge management ~~of the Refuge~~ will comply with the factors described previously. As a result, the alternatives will share a set of common management policies and guidelines. These directions provide a common management base on which each of the alternatives is built and represent the typical level of management necessary to comply with existing law, regulation, and policy.

2.1 Management Emergencies

It may be necessary, when emergencies occur on ~~the~~ a refuge, to deviate from policies and guidelines discussed in the conservation plan. Activities not allowed on ~~the~~ a refuge or under a specific management category, as shown in Table 1, may occur during or as a result of emergencies. For example, if naturally occurring or human-caused actions (e.g., landslides, floods, fires, droughts) adversely affect refuge resources, it may be necessary to undertake

rehabilitation, restoration, habitat improvement, water management, fisheries enhancement, or other actions that would not otherwise be allowed to the same extent on the refuge. Threats to human health and safety may also result during emergencies. In emergencies, the refuge manager is authorized to take prudent and reasonable actions to protect human life and to address immediate health, safety, or critical resource-protection needs.

2.2 Land Exchanges and Acquisitions

Under Section 1302 of ANILCA, and subject to certain restrictions, the Service may acquire by purchase, donation, or exchange any lands within the boundaries of Alaska refuges. Proposed land exchanges or acquisitions must benefit fish and wildlife resources, satisfy other purposes for which the refuge was established, or be necessary to satisfy other national interests. The Service can also purchase conservation easements or enter into cooperative management agreements to meet these objectives

2.3 Land Protection Plans

Department of Interior and Service policies require development of a step-down plan, called a land protection plan, addressing priorities for habitat conservation within refuge boundaries. Land protection plans inform private landowners what land within refuge boundaries the Service would like to see conserved for fish and wildlife habitat. The plans do the following:

- Identify the private lands within the refuge boundary that the Service believes should be conserved.
- Display the relative protection priority for each parcel.
- Discuss alternative means of land and resource conservation.
- Analyze the impacts on local residents of acquisition.

In Alaska, the Service only acquires land from willing landowners. It is Service policy to acquire land only when other methods of achieving goals are not appropriate, available, or effective. Sometimes resource conservation goals can be met through cooperative management agreements with landowners or by similar means. ~~The Refuges~~ will work with all landowners to ensure that overall fish and wildlife and habitat values within the refuge are conserved.

~~A land conservation plan for the Refuge was completed on <is scheduled to be completed by >.~~

A pre-acquisition environmental site assessment is required for all real property proposed for acquisition by the Service or for public domain lands returning to Service jurisdiction (Service Manual 341 FW 3).

2.4 Compatibility Determinations

The Refuge Administration Act states that “the Secretary is authorized, under such regulations as he [or she] may prescribe, to . . . permit the use of any area within the System for any purpose, including but not limited to hunting, fishing, public recreation and accommodations, and access whenever he [or she] determines that such uses are compatible”

A compatible use is a proposed or existing wildlife-dependent recreation use or any other use of a national wildlife refuge that, based on sound professional judgment, will not materially interfere with nor detract from the fulfillment of the National Wildlife Refuge System mission or the purposes for which the national wildlife refuge was established. Economic uses must contribute to achieving refuge purposes and the System mission.

Compatibility determinations are not required for refuge management activities, except economic activities. They are also not required where statute directs mandatory approval of the activity as in the case of navigation aids, for example.

If a use is found to be incompatible, the refuge would follow normal administrative procedures for stopping the action. If the use was a new use requiring a special use permit, the refuge manager would not issue a permit. If the use was an existing use already under permit, the refuge manager would work with the permittee to modify the use to make it compatible or would terminate the permit.

Ending incompatible uses that do not require a special use permit or other formal authorization, or that cannot be addressed by other federal or state agencies, would require the refuge go through the normal rule-making process. This would include publishing the proposed regulations in the *Federal Register* and providing opportunity for public comment.

Draft compatibility determinations for refuge uses ~~on the Refuge~~ are included found in each Appendix of the draft conservation plan. Public comments on the draft determinations ~~will be~~ are addressed in the final determinations released with the final conservation plan.

Compatibility determinations for existing hunting, fishing, wildlife observation and photography, and environmental education and interpretation must be re-evaluated with the preparation or revision of a comprehensive conservation plan or at least every 15 years, whichever is earlier. Compatibility determinations for all other uses must be re-evaluated every 10 years or earlier if conditions change or significant new information relative to the use and its effects becomes available.

To review completed compatibility determinations for all refuges in Alaska, go to <http://alaska.fws.gov/nwr/planning/completed.htm>

Additional details on applying compatibility standards and completing compatibility determinations are found in the compatibility regulations at 50 CFR (Parts 25, 26, and 29) and in the Service Manual (603 FW 2).

2.5 Mitigation

In the interest of serving the public, it is the policy of the Service, throughout the nation, to seek to prevent, reduce, or compensate for losses of fish, wildlife, and their habitats, and uses thereof, from land and water development. To that end, the Service developed a “Mitigation Policy” in 1981 that includes measures ranging from avoiding an activity that results in loss of such resources to seeking compensation by replacement of or substitution for resource loss.

The Service will promulgate regulations, develop stipulations, and issue permits to reduce or eliminate potential adverse impacts resulting from compatible activities that may be authorized under this plan. These regulations, stipulations, and permits would mitigate impacts in a variety of means, as stipulated in the Mitigation Policy guidelines (Service Manual 501 FW 2.1). The means, in order of application, are as follows:

1. Avoiding the impact altogether by not taking a certain action or parts of an action.
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
5. Compensating for the impact by replacing or providing substitute resources or environments.

When determining activities or uses as compatible, projects should be designed first to avoid adverse impacts. The Service generally would not allow compensatory mitigation on National Wildlife Refuge System lands, and only in limited and exceptional circumstances could compensatory mitigation be used to find an activity compatible. The Service Manual (501 FW 2 and 603 FW 2) provides more information.

Mitigation may consist of standard stipulations such as those attached to right-of-way permits; special stipulations that may be attached to leases or permits on a site-specific basis; and site-specific, project-specific mitigation identified through detailed step-down management plans or the environmental assessment process. In all instances, mitigation must support the mission of the National Wildlife Refuge System and must be compatible with the purposes of the refuge. The degree, type, and extent of mitigation undertaken would depend on the site-specific conditions present and the management goals and objectives of the action being implemented.

2.6 Coastal Zone Consistency

Although federal lands, including lands in the National Wildlife Refuge System, are excluded from the coastal zone (16 U.S.C., Section 1453[1]), the Coastal Zone Management Act of 1972, as amended, directs federal agencies conducting activities within the coastal zone or that may affect any land or water use or natural resources of the coastal zone to conduct these activities in a manner that is consistent “to the maximum extent practicable”^a with approved state management programs (16 U.S.C. 1456).

The Alaska Coastal Zone Management Act of 1977, as amended, and the subsequent Alaska Coastal Management Program, as amended, and Final Environmental Impact Statement (1979) establish policy guidance and standards for the review of projects within or potentially affecting Alaska’s coastal zone. In addition, specific policies have been developed for activities and uses of coastal lands and water resources within regional coastal resource districts. Most incorporated cities, municipalities, and boroughs as well as unincorporated areas (coastal resource service areas) within the coastal zone now have state-approved coastal management programs.

Although state and coastal district program policies are to guide consistency determinations, more restrictive federal agency standards may be applied. Federal regulations state that “(w)hen Federal agency standards are more restrictive than standards or requirements contained in the State’s management program, the Federal agency may continue to apply its stricter standards . . .” (15 CFR 930.39[d]).

Certain federal actions may require a Federal Coastal Consistency Determination. ~~The Refuge~~ Each refuge will contact the Department of Natural Resources’ Alaska Coastal Management Program for program applicability before beginning a project that may affect the coastal zone.

~~Section of the~~ Each conservation plan ~~is~~ must include a consistency determination covering all the alternatives for managing the refuge.

2.7 Cooperation and Coordination with Others

2.7.1 Federal, State and Local Governments

~~The Refuge~~ Each refuge will continue to work closely with those federal, state, and local governments and agencies whose programs affect, or are affected by, a refuge. ~~the Refuge~~. State and local government input will be sought during the development of regulatory policies addressing management of the refuge system (Executive Order 13083—Federalism). When possible, the Service

^a “To the maximum extent practicable” means “to the fullest degree permitted by existing law (15 CFR, Section 930.32).”

will participate in interagency activities (such as joint fish and wildlife surveys and co-funded research), cooperative agreements, sharing data, and sharing equipment and/or aircraft costs to meet mutual management goals and objectives.

When ~~the Refuge~~ a refuge is aware of issues involving management jurisdiction or authority over submerged lands or other areas or resources, it will, under appropriate situations, coordinate with the State of Alaska. Coordination may involve formal and informal management agreements between the Service and the state, but the assertion of management authority will not be contingent on completing any agreements or any other action not required by federal law. Questions regarding the ownership of specific submerged lands may be addressed to ~~the Refuge~~ a refuge headquarters.

~~The Refuge~~ Each refuge and the State of Alaska will cooperatively manage ~~the refuge~~ fish and wildlife resources ~~of the Refuge~~. The Master Memorandum of Understanding between the Service and the Alaska Department of Fish & Game (dated March 13, 1982) defines the cooperative management roles of each agency (~~see Appendix~~). In this agreement, the Alaska Department of Fish & Game agreed to “recognize the Service as the agency with the responsibility to manage migratory birds, endangered species, and other species mandated by Federal law, and on Service lands in Alaska to conserve fish and wildlife and their habitats and regulate human use.” Correspondingly, the Service agreed to “recognize the right of the Alaska Department of Fish & Game as the agency with the primary responsibility to manage fish and resident wildlife within the State of Alaska.” Further discussion of intergovernmental cooperation regarding the preservation, use, and management of fish and wildlife resources is found in Title 43 CFR, Part 24 (Department of the Interior Fish & Wildlife Policy: State and Federal Relationships).

We do not require compatibility determinations for state wildlife management activities on a national wildlife refuge pursuant to a cooperative agreement between the state and the ~~Fish & Wildlife~~ Service where the refuge manager has made a written determination that such activities support fulfilling the refuge purposes or the System mission. When the activity proposed by the state is not part of a cooperative agreement or the state is not acting as the Service’s agent, a special use permit may be required, and a compatibility determination will need to be completed before the activity may be allowed. Separate compatibility determinations addressing specific proposals will be required for state management activities that propose predator management, fish and wildlife control (with the exception of emergency removal of individual rogue animals), reintroduction of species, nonnative species management, pest management, disease prevention and control, fishery restoration, fishery enhancement, native fish introductions, nonnative species introductions, construction of facilities, helicopter access, or any other unpermitted activity that could alter refuge ~~s~~ ecosystems.

2.7.2 *Tribes and Native American Organizations*

The Service's Native American Policy (USFWS 1994) identifies general principles that guide the Service's government-to-government relationships with tribal governments in the conservation of fish and wildlife resources. Additional guidance has been provided by Executive Order 13084, "Consultation and Coordination with Indian Tribal Governments," issued May 14, 1998, and the Department of the Interior-Alaska Policy on Government-to-Government Relations with Alaska Native Tribes issued January 18, 2001 (USDI 2001). ~~The Refuges~~ Each refuge will maintain government-to-government relationships with tribal governments. ~~The Refuges~~ Refuges will also work directly with regional and village corporations and respect Native American cultural values when planning and implementing refuge programs. ~~on the refuge.~~

2.7.3 *Owners of Refuge Inholdings and Adjacent Lands*

~~The Refuge~~ Each refuge will work cooperatively with inholders and adjacent landowners, providing information on refuge management activities and policies. ~~The Refuge~~ Each refuge will consult periodically with them regarding topics of mutual interest; will respond promptly to concerns over refuge programs; and will participate in cooperative projects (e.g., water-quality monitoring and fish and wildlife management).

2.7.4 ~~FWS~~ *Fish and Wildlife Service Jurisdiction over Waters within Refuges*

Where the United States holds title to submerged lands beneath waters within ~~the Refuge~~ a refuge, the Service has jurisdiction over activities on the water. In 1980, under ANILCA, the United States Congress established ~~the XX National Wildlife Refuges~~ or expanded 16 national wildlife refuges. These areas of land and water may contain both navigable and non-navigable waters. Where waterbodies are non-navigable within ~~the Refuge~~ a refuge the Service has management authority over most activities on water where adjacent uplands are federally owned. Where State of Alaska lands exist beneath navigable waterbodies or where the state, a Native corporation, or a Native allottee owns the adjacent uplands within areas of the ANILCA-established refuge, the Service's management authority is limited.

The Service's statutory authority to manage these lands and waters comes from ANILCA; the Service manages these lands pursuant to the National Wildlife Refuge System Administration Act of 1966, as amended. Under provisions of ANILCA, the Service manages the federal subsistence program on all inland waters within and adjacent to the external boundaries of ~~the Refuge~~ a refuge.

2.7.5 Other Constituencies

~~The Refuge~~ Each refuge will inform local communities, special interest groups, and others who have expressed an interest in or are affected by refuge programs about refuge management policies and activities. ~~The refuge~~ Each refuge will seek input from these constituents when issues arise that may affect how ~~the Refuge a~~ refuge is managed. Whenever possible, local residents and special interest groups will be asked to participate in refuge activities so their expertise and local knowledge can be incorporated into refuge management.

2.8 Ecosystem and Landscape Management

Species do not function alone; they function together in the environment as part of an ecosystem. ~~The Refuge~~ Refuge resources will be managed ~~the resources of the refuge~~ by employing ecosystem-management ~~techniques~~ concepts. Individual species are viewed as integral to the diversity of those ecosystems and as such are indicators of the healthy functioning of the entire ecosystem. When the Service identifies species to use as indicators of the health of the ecosystem, it will do so through a rigorous peer-reviewed scientific process involving experts from other federal agencies and the Alaska Department of Fish & Game.

Inventorying, monitoring, and maintaining a comprehensive database of selected ecosystem components are critical for making refuge management decisions and for ensuring the proper long-term stewardship of refuge ecosystems. This includes regular and recurring monitoring of status and trends for ecosystem components such as fish, wildlife, plants, climatic conditions, soils, and waterbodies. All monitoring will employ appropriate disciplines, new technologies, and scientific capabilities whenever practical.

2.8.1 Air Quality

The Service's authorities for air-quality management are included in several laws. The most direct mandates to manage air resources are found in the Wilderness Act and the Clean Air Act.

The Service is required by the Clean Air Act to preserve, protect, and enhance air quality and air quality-related values on Service lands. Air quality-related values include visibility, plants, animals, soil, water quality, cultural and historical resources, and virtually all resources that are dependent upon and affected by air quality. In addition, the Wilderness Act requires the Service to protect and preserve the Wilderness character, including the pristine air quality, of designated areas.

Class I air-quality sites receive the highest level of protection. Very little deterioration is allowed in these areas, and the federal land manager has an "affirmative responsibility" to protect air quality-related values on those lands. With the exception of three Class I air-

quality sites in designated Wilderness on the Alaska Maritime National Wildlife Refuge, all other lands managed by the Service in Alaska are classified as Class II and receive protection through the Clean Air Act. Moderate deterioration, associated with well-managed growth, is allowed in Class II areas.

If air quality or related resources are at risk, the refuge manager will work with the Service's Air Quality Branch; the regional air quality coordinator; the Alaska Department of Environmental Conservation and other state, local, and federal agencies; and the public, as appropriate, in developing an air-quality management plan as outlined in the Service Manual (563 FW 2.8).

2.8.2 Water Resources (Hydrology) Management

Every national wildlife refuge in Alaska shares the common purpose of ensuring that water resources are maintained and protected. The ANILCA mandates that the Service safeguard water quality and necessary water quantity within ~~the Refuges~~ a refuge and to conserve fish and wildlife populations and habitats in their natural diversity.

Although the Service has reserved water rights sufficient to accomplish the purposes of the refuges, the Refuge System Administration Act (16 U.S.C. 660dd) and the Service Manual (403 FW 1-3) direct the Service to obtain, to the extent practicable, water supplies of adequate quantity and quality for Service facilities, for refuge purposes and as trust resources, and to obtain the legal right to use that water through state laws, regulations, and procedures.

The Alaska Region conducted a water-resources threats analysis (Harle 1994) for the purpose of guiding water resource investigations and protecting water resources by acquiring instream water rights protection. Based on the results of the threats analysis, the Service's regional office developed a strategic plan for systematically quantifying the surface water on refuges within Alaska (Bayha et al. 1997).

Using existing data, or through the collection of hydrologic and biologic data, the Service applies to the State of Alaska for appropriative water rights, for instream water reservations and for water withdrawals to meet the purposes identified in ANILCA and the Refuge Improvement Act. Establishing state water rights is only a part of a management strategy to protect refuge resources and to understand ecosystem processes. Collection of hydrologic data allows the Service to accomplish the following:

- Plan flood-plain and riparian zone management.
- Estimate flow for ungauged refuge streams.
- Supplement historical or current fisheries and wildlife studies.
- Detect and evaluate future natural or human-induced changes in the hydrologic system.

- Provide stream profile and velocity data for the design of fish weirs or other structures.
- Estimate the potential for future flooding and erosion.
- Analyze the impacts of proposed projects on stream flow and water supply.
- Provide a basis for decision-making about commercial operations on some important streams.
- Provide baseline water quality conditions.

All facilities and activities on refuges must comply with pollution-control standards set by federal laws (e.g., the Clean Water Act 33 U.S.C. 1251 and the Safe Drinking Water Act 42 U.S.C. 300f); state laws where federal law so provides; and the regulations, policies, and standards implementing these laws.

2.8.3 Visual Resource Management

Visual resource management has two primary purposes: (1) to manage the quality of the visual environment and (2) to reduce the visual impact of development activities. To accomplish these purposes, ~~the Refuge~~ refuges will identify and maintain ~~the~~ scenic values ~~of the Refuge~~ and will, within the constraints imposed by the conservation plan, minimize the visual impacts of refuge development and uses. ~~of the Refuge~~. All activities and facilities on ~~the Refuge~~ each refuge will be designed to blend into the landscape to the extent practical. The Service will cooperate with other federal, state, local, tribal, and private agencies and organizations to prevent significant deterioration of visual resources.

2.8.4 Cultural, Historical, and Paleontological Resources

The Service has long-term responsibilities for cultural resources on refuge lands. Cultural resources on refuge lands are managed under a number of laws, executive orders, and regulations, including the Antiquities Act; the National Historic Preservation Act, as amended; the Archaeological Resources Protection Act; the American Indian Religious Freedom Act; the Native American Graves Protection and Repatriation Act; Executive Order 11593, Protection and Enhancement of the Cultural Environment; Executive Order 13007, Indian Sacred Sites; and 36 CFR 800.

The 1980 amendments to the National Historic Preservation Act direct the Service to inventory and evaluate cultural resources for their eligibility for inclusion on the National Register of Historic Places. All significant historic, archaeological, cultural, and paleontological resources on ~~the Refuge~~ refuges will be protected and managed in accordance with federal and state law. Because of limits of time, funding, and staffing, the Service must designate priorities in evaluating cultural resources on refuge lands. Pending a complete evaluation, all cultural resources will be considered potentially eligible for the National Register. When funds become available, the first priority will be to prepare a substantial and

comprehensive cultural resource overview to be used to guide future inventory and evaluation. Sites determined to be eligible for the National Register will be protected with an appropriate cultural resources management plan.

A cultural resource plan ~~for the refuge~~ will be completed ~~by (was completed on)~~ for each refuge. This plan provides guidance for cultural resource management on the refuge. It outlines legal mandates and considerations, reviews current information about resources and establishes goals and objectives for the program. The cultural resource plan should be updated every five years. Cultural resource plans are considered step-down plans.

It is illegal to collect archaeological materials and/or vertebrate paleontological remains on ~~the Refuge~~ refuges without a permit issued under the provisions of the Archaeological Resources Protection Act (for archaeological materials) or of the Antiquities Act of 1906 (vertebrate paleontological remains). Historic aircraft and other World War II material will be managed in accordance with a policy published December 20, 1985, in the *Federal Register* (FR 50:51952-51953). These materials may be collected on refuge lands only as authorized by a permit issued to a qualified organization or individual. Cultural resource research permits will only be issued to qualified individuals operating under appropriate research designs. ~~The Refuge~~ Refuges will encourage archaeologists, historians, ethnologists, and paleontologists from educational institutions and other government agencies to pursue their research interests on refuge lands as long as these research interests are compatible with refuge purposes. Research that collects data from threatened sites and minimizes disturbance to intact sites will be encouraged.

When any federal undertaking—including any action funded or authorized by the federal government and having the potential to directly or indirectly affect any archaeological or historic site—is planned, a consultation must be initiated with the State Historic Preservation Officer, under Section 106 of the National Historic Preservation Act. If sites that may be affected are found in the project area, their significance will be evaluated to determine their eligibility for inclusion in the National Register. For eligible sites, consultation will result in a course of action causing the least possible impact. Impacts may be minimized in a variety of ways, including relocation or redesign of a project, site hardening, mitigation through information collection, or cancellation of the project if no alternatives are feasible. To protect archaeological and historic sites, other uses may be precluded. Private interests proposing to conduct commercial uses on ~~the Refuge~~ refuges will normally be required to fund studies necessary for consultation and for mitigation of impacts.

~~The Refuge~~ Each refuge will implement Executive Order 13007, Indian Sacred Sites, allowing access to identified sacred sites and avoiding adversely affecting the physical integrity of these sites.

Where appropriate, the Service will maintain the confidentiality of sacred sites.

Further information on cultural resources management can be found in the Service Manual (614 FW 1-5) and the Cultural Resources Management Handbook (USFWS 1992).

2.9 Fish and Wildlife Habitat Management

2.9.1 *Habitat Management*

Habitats are managed in keeping with the purposes, goals, and objectives of a refuge. In most cases, this means habitats are managed to maintain a natural state with little or no human intervention. In some cases, habitats are manipulated to maintain or improve conditions for selected fish and wildlife populations, to control plant species, or to manage fire fuels on refuge lands. Any habitat management and manipulation activities will be carried out in support of the purposes, goals, and objectives of the refuge. ~~The~~ Refuge Refuges will use the least-intrusive management measures needed. Where practical and economically feasible, habitat management practices will maintain a natural appearance on the landscape. Habitat-management practices, even those carried out for the benefit of a single species or small group of species, will, to the extent possible, contribute to the widest diversity of native (indigenous) wildlife species and habitat types.

Habitat management and manipulation may be achieved by mechanical, chemical, and manual methods, including the use of fire, or by a combination of methods. Mechanical treatment could include mechanical removal, crushing, cutting, or mowing. When applicable, state and federal guidelines for timber management will be followed. Mechanical treatment could also include the construction of fish passages, fish ladders, fish barriers, water impoundments and structures such as fences or artificial nests, and raising or lowering of water levels to manage wildlife or waterfowl habitat. Riparian or aquatic habitat management and manipulation may be achieved by acquiring instream-flow reservations or making beneficial water diversions.

Chemical treatment would involve the use of chemicals to restore nutrient levels in a lake system (fertilization) for fisheries restoration, to reduce hazardous fuels, or to eliminate nonnative plant and animal species, normally by killing them or destroying their ability to spread or prosper. Before chemical treatment is used, ~~the-Refuge~~ refuges will analyze the need for action, the options for treatment, and the potential impacts of those options. A pesticide-use proposal must be approved by the Service's regional office before chemical controls are used on refuge lands (USFWS Administrative Manual, 30 AM 12, and Refuge Manual 7 RM 14.)

Manual treatment could include the use of hand tools to remove, reduce, or modify hazardous fuels or nonnative plant or animal species or to modify habitats (e.g., removal of beaver dams).

Aquatic habitat modification may include activities and structures such as streambank restoration, passage structures, and fish barriers or obstacles removal that results in physical modification of aquatic or riparian habitats to benefit fish species. These activities would be undertaken to maintain or restore native fish populations and may require appropriate National Environmental Policy Act (NEPA) compliance and compatibility determinations.

2.9.2 Fire Management

Fire management is the full range of activities necessary to conserve, protect, and enhance habitat and to maintain desired ecological conditions for the benefit of fish and wildlife. Fire-management activities include preparedness, emergency suppression operations, wildland fire use, fire prevention, education, monitoring, research, prescribed fire, hazardous fuel reduction, and mechanical treatments. All activities will be conducted in accordance with refuge, Service, and Department of Interior policies and approved interagency and refuge-specific fire management plans. Additional guidance on fire management can be found in the Service Manual (621 FW 1-3).

Such a fire management plan provides the basis for integrating fire as a critical natural process into other refuge plans and activities ~~on the Refuge~~ at a landscape scale. The refuge fire management plan provides specific information on the application and management of fire on ~~the Refuge~~ a refuge. The Alaska Interagency Wildland Fire Management Plan provides a cooperative framework and operational guidelines for the suppression of wildland fires. The suppression of human-caused and unwanted wildland fires and the use of nature-caused wildland fires and prescribed fires as management tools are important management prerogatives. ~~The Refuge~~ Each refuge's fire management plan provides specific information on the application and management of fire on ~~the Refuge~~ that refuge.

Wildland Fire Suppression

Fire suppression activity is the work of confining, constraining, controlling, or monitoring a fire or portion of a fire to protect, prevent, or reduce the loss of identified values. Suppression takes place, with the highest priority being the safety of firefighters and the public, using the appropriate management response based on values to be protected. The Alaska Interagency Wildland Fire Management Plan, amended in October 1998, is the guiding document for suppression actions. The plan establishes four management options—critical, full, modified, and limited—that direct a range of wildlife fire management responses. Refuge lands have been classified by fire management zones for limited, modified, or full suppression, with all facilities mapped.

The Bureau of Land Management Alaska Fire Service (BLM/AFS) provides emergency suppression services on refuge lands in Alaska (DOI 2001, 620 DM 2), as directed by the refuge manager. Through a cooperative agreement with BLM/AFS, the State of Alaska Division of Forestry provides emergency suppression services on refuge lands in state protection zones, as directed by the refuge manager.

Wildland Fire Use

Wildland fire use is the application of the appropriate management response to naturally ignited wildland fires to accomplish resource management objectives outlined in fire management plans. Wildland fires may be used to protect, maintain, and enhance natural and cultural resources and, as nearly as possible, wildland fires will be allowed to function in their natural ecological role. Optional management is described in ~~the Refuge's~~ each refuge fire management plan.

Prescribed Fire

Prescribed fires are ignited by management action to meet specific wildland fuel, vegetation, and habitat management objectives. Prior to each ignition, a written, approved plan outlining prescription conditions is required. Use of prescribed fires must also comply with the Alaska Enhanced Smoke Management Plan for Prescribed Fire. The plan provides guidance and direction concerning smoke issues related to prescribed fire.

2.9.3 Weed Control (Pest and Nonnative Plant Management)

Weeds can cause significant impacts to the land and water resources and to the species of plants and animals that use these habitats. To manage weeds, ~~the Refuge~~ refuges will include weed inventories as part of all habitat inventories. ~~The refuge~~ Each refuge will review the proposed action's potential to introduce or spread weeds and will take measures to reduce the hazards (e.g., require weed-free feed for pack animals). ~~The Refuge~~ Refuges will coordinate with other landowners and agencies and use integrated pest-management practices to enhance the detection, prevention, and management of weed problems. Use of chemical control measures on refuge lands requires regional office approval of a pesticide-use proposal (Administrative Manual 30 AM 12 and Refuge Manual 7 RM 14).

2.10 Fish and Wildlife Population Management

Conservation of habitat is a key element in maintaining the natural diversity of refuge populations, ~~on the Refuge~~ and management of native fish and wildlife populations is an important component of maintaining a healthy ecosystem. ~~The Refuge~~ Refuges will be managed consistent with the Policy on Maintaining Biological Integrity, Diversity, and Environmental Health of the National

Wildlife Refuge System (Service Manual 601 FW 3) to ensure native species are managed in their natural diversity and abundance.

~~The Refuge~~ Each refuge will work with the State of Alaska to conserve fish and wildlife populations, recognizing that populations may experience fluctuations in abundance because of environmental factors and may require management actions for conservation purposes. ~~The Refuge~~ Refuges will be managed to maintain the genetic variability of wild, native fish stocks.

2.10.1 Wildlife Inventory and Monitoring Plan

To assess presence, relative abundance, distribution, and trends in populations of fish, wildlife, and plants, ~~the Refuge~~ each refuge will draft a Wildlife Inventory and Monitoring Plan (WIP). The WIP describes objectives, justification, methods, management implications, geographic scale, report schedules, and database management for studies on species targeted for inventory and monitoring. The WIP will include studies that address environmental parameters (e.g., weather) and hydrology, soils, and fire history to explain potential changes in the distribution, relative abundance, and populations of fish, wildlife and plants. The WIP will be forwarded to the regional office for review by the regional refuge biologist and other professional staff prior to final approval by the regional refuge chief. ~~The Refuge~~ Each refuge will update its WIP on an annual basis but will only need regional review and approval every five years.

2.10.2 Scientific Peer Review

Biologists, ecologists, botanists, and other refuge personnel conducting scientific investigations will adhere to refuge, regional, Service, and Department of Interior policies on scientific conduct, including scientific peer review. The overall goal of scientific peer review is to ensure that information collected, analyzed, interpreted, and reported to the public and upon which policy and management decisions are based, meets established standards of the scientific community. To achieve this goal, refuge biologists, ecologists, botanists, and others serving as ~~a~~ principal investigators will write a study plan that will undergo peer review. In addition, study plans, reports, and manuscripts that summarize the results of scientific studies, analyses, assessments, or syntheses developed by, or supported by, the Service will undergo scientific review prior to publication. The type and level of review shall be commensurate with the potential significance of the scientific information and its likely influence on policy and management actions.

2.10.3 Compliance with the Animal Welfare Act

The Animal Welfare Act of 1996 established legal standards for animal care and use. To prescribe methods and set standards for the design, performance, and conduct of animal care and use, research facilities and federal agencies must establish an Institutional Animal Care and Use Committee (IACUC). Field studies conducted or

authorized by refuge employees within the purview of the Animal Welfare Act will require review and approval of an IACUC. Any refuge study that involves an invasive procedure or that harms or materially alters the behavior of an animal under study should be reviewed and approved by the Fish & Wildlife Service's (Region 7) IACUC prior to implementing field work.

2.10.4 Marking and Banding

These activities include fish and wildlife capture, marking, banding, radio-collaring, release, tracking, and other information-gathering techniques. Cooperation with appropriate partners, including the Alaska Department of Fish & Game, will be stressed, and specific protocols will be followed, taking advantage of all appropriate disciplines and new technologies wherever possible.

2.10.5 Threatened or Endangered Species

~~The Refuge~~ Each refuge will consult with ~~the~~ U.S. Fish & Wildlife Service Ecological Services field office on actions that may affect listed, proposed, or candidate species or designated or proposed critical habitat. These actions include refuge operations, public-use programs, private lands and Federal Aid activities, promulgating regulations, and issuing permits (USFWS 1973, Section 7 Consultation Handbook 1998).

2.10.6 Introductions and Reintroductions

A species may be introduced on a refuge only if that species is native to the refuge (i.e., a reintroduction). Nonnative species may not be introduced. Definitions of native and nonnative species are found in the glossary.

Reintroductions can be useful tools for restoring species to natural ranges and reestablishing a refuge's natural fish, wildlife, and habitat diversity. Reintroductions would require appropriate NEPA compliance, a review to ensure consistency with the biological integrity policy, an ANILCA Section 810 determination, and a refuge compatibility determination. Reintroductions also require extensive coordination with adjacent landowners and with the State of Alaska. In evaluating the project, the cause(s) of the extirpation should be evaluated and management actions taken to alleviate the cause(s) prior to reintroduction.

The environmental requirements of the species and the ecological dynamics of the area proposed for the reintroduction need to be thoroughly reviewed prior to a reintroduction. Some factors to consider include behavior, diseases, general ecology of the species, habitat requirements, inter- and intra-species competition, life history, genetics, management practices, population dynamics, and predators. Consideration should be given to whether there have been significant habitat changes since the species' extirpation (e.g., is the area still within the species' natural range?).

2.10.7 Fish and Wildlife Control

These activities involve the control, relocation, and/or removal of native species, including predators, to maintain natural diversity of fish, wildlife, and habitats. These management actions may be employed with species of fish and wildlife within their original range to restore other depleted native populations. These activities are subject to appropriate NEPA compliance, an ANILCA Section 810 subsistence determination, and a refuge compatibility determination.

Predator management includes the relocation, removal, sterilization, and other management of native predators to accomplish management objectives. The Service considers predator management to be a legitimate conservation tool when applied in a prudent and ecologically sound manner and when other alternatives are not practical. The key requirements are that a predator-management program be ecologically sound and biologically justified. In keeping with the Service's mandate to first and foremost maintain the biological integrity, diversity, and environmental health of fish and wildlife populations at the refuge scale, a predator population will not intentionally be reduced below a level consistent with the low-end of natural population cycles (see Service Manual 601 FW 3).

A predator-management program requires appropriate NEPA compliance, an ANILCA Section 810 evaluation, and, if conducted by other than the Service, a refuge compatibility determination. Alternative management actions must be evaluated prior to pursuing direct predator-control activities. Any proposal to allow or implement a predator-management program on national wildlife refuges in Alaska will be subjected to public review and closely coordinated with the Alaska Department of Fish & Game, local communities, tribal governments, and adjacent landowners and/or managers. Predator-management activities must be monitored and evaluated for effectiveness and resource impacts.

Normal environmental education and population-management activities—such as trapper education programs and regulation changes that allow for increased harvests of predatory animals by licensed trappers and hunters—are not considered to be “predator management.” The control or extirpation of nonnative predators is not considered to be “predator management” (see Section 2.10.8).

2.10.8 Nonnative Species Management

In general, nonnative species (including feral domestic animals) are not compatible with refuge purposes or with National Wildlife Refuge System policies. When nonnative species (fish, wildlife, or plants) occur on a refuge, the Service may control or eliminate that species. Where a population of a nonnative species has already been established on a refuge and this population does not materially interfere with or detract from the fulfillment of the mission of the National Wildlife Refuge System or the purposes of the refuge, the species may be managed as part of the refuge's diverse ecosystem.

2.10.9 Fish and Wildlife Pest Management and Disease Prevention and Control

Organisms (e.g., rabies or parasites) that threaten human health and property or survival of native wildlife or plant species may be managed or removed after consideration of all reasonable options and consultation with the State of Alaska and other concerned parties. This will normally only occur when severe resource damage is likely or when public health or safety is jeopardized. Wherever possible, an integrated approach to pest management will be used in accordance with the Service's Administrative Manual, 30 AM 12, and Refuge Manual, 7 RM 14. If chemical controls are used, a pesticide-use proposal must be submitted to the regional office for approval.

2.10.10 Fishery Restoration

Fishery restoration is any management action that increases fishery resources to allow full use of available habitat or to reach a population level based on historical biologic data. Although the goal of restoration is self-sustaining populations, situations may exist in which some form of fishery management or facilities could continue indefinitely.

Where fishery resources have been severely adversely affected, ~~the Refuges~~ refuges will work with the State of Alaska, local tribes, and other partners to restore habitats and populations to appropriate, sustainable conditions. Restoration emphasis will focus on strategies that are the least intrusive to the ecosystem and do not compromise the viability or genetic characteristics of the depleted population. This may include regulatory adjustments and/or evaluations of escapement goals. If the stocks have been reduced or are threatened, temporary restoration facilities may be allowed in designated Wilderness or Wild River areas, as long as the facilities will not significantly detract from the values for which those areas were established.

2.10.11 Fishery Enhancement

Fishery enhancement is any management action or set of actions that is applied to a fishery stock to supplement numbers of harvestable fish to a level beyond that which could be naturally produced based on a determination or reasonable estimate of historic levels. This could be accomplished by stocking barren lakes, providing access to barren spawning areas (fish passages), constructing hatcheries, outstocking in productive systems, or fertilizing rearing habitat.

Refuge management priorities will focus on conserving naturally diverse ecosystems. Fishery-enhancement facilities for the purpose of artificially increasing fish populations normally will not occur within any management category unless stocks have been reduced or are threatened.

Proposals for fishery-enhancement projects will be subject to the provisions of NEPA regulations, an ANILCA Section 810 determination, and a compatibility determination. Only temporary fisheries-enhancement facilities may be authorized in Minimal, Wild River, and Wilderness management areas. Proposals for facilities within designated Wilderness require a minimum-requirements analysis to determine if the facilities are necessary within the Wilderness Area and would not significantly detract from the values for which those areas were established.

2.11 Subsistence Use Management

Providing the opportunity for continued subsistence use by local residents is one of the purposes of every national wildlife refuge in Alaska except Kenai National Wildlife Refuge, as stated in Title III of ANILCA. Title VIII of ANILCA further provides that rural Alaska residents engaged in a subsistence way of life be allowed to continue using refuge resources for traditional purposes. These resources include fish and wildlife, house logs and firewood, and other plant materials (berries, bark, etc.). Many aspects of subsistence management are addressed outside of ~~this plan~~ refuge conservation plans. The Federal Subsistence Board, through its rule-making process, addresses seasons, harvest limits, and customary and traditional use determinations. The federal board has established Regional Subsistence Advisory Councils to provide for meaningful public input to the rule-making process.

~~The Refuge~~ Refuges will work with others to monitor subsistence harvest, including monitoring conducted by other federal land management agencies, the State of Alaska, tribal governments, Native organizations, or any other party. ~~The Refuge~~ Refuges will supplement the state's ongoing harvest and resource monitoring programs to provide additional information on the status of fish and wildlife populations harvested for subsistence uses. This monitoring is intended to identify potential problems before populations of fish and wildlife become depleted and to ensure preference is given to subsistence users as required by law. All information ~~the Refuge a~~ refuge gathers through subsistence monitoring will be shared with local state fish and game advisory committees, tribes, and other entities. ~~The Refuge attends~~ Refuges attend various subsistence-related meetings, including those of local fish and game advisory committees and Regional Subsistence Advisory Councils, and provide information on the status of subsistence resources and management. ~~as it relates to Refuge~~

The noncommercial gathering by local rural residents of fruits, berries, mushrooms, and other plant materials for subsistence uses and of dead standing or down timber for firewood is allowed without a special use permit. Harvest of live standing timber for house logs, firewood, or other uses is allowed, although specific requirements vary by size and location. See 50 CFR 36.15 (U.S. Government

1996-2003) for specific details. Timber stocks subject to subsistence use will also be monitored to ensure they remain available over the long term.

Under Section 816 of ANILCA, refuge lands may be closed to the taking of fish and wildlife if closure is deemed necessary for reasons of public safety, administration, or to ensure the continued viability of particular populations of fish or wildlife. Emergency closure to subsistence taking generally would occur only after other consumptive uses competing for the resources were restricted or eliminated.

2.11.1 Access for Subsistence Purposes

Access to refuge lands by traditional means will be allowed for subsistence purposes in accordance with Section 811 of ANILCA, subject to reasonable regulation (see 50 CFR 36.12). Traditional means include snowmachines, motorboats, dog teams, and other means of surface transportation traditionally used by local rural residents engaged in subsistence activities. Use of these traditional means of travel will be in compliance with state and federal law in such a manner to prevent waste of harvested resources or damage to the refuge and to prevent herding, harassment, hazing, or driving of wildlife.

2.11.2 Section 810 Evaluations

~~The Refuge~~ Each refuge will evaluate the effects of proposed activities on subsistence use to ensure compliance with Section 810 of ANILCA. ~~The Refuge~~ Each refuge will work with the Federal Subsistence Board, Regional Subsistence Advisory Councils, local fish and game advisory committees, tribes, Native corporations, the Alaska Department of Fish & Game, and other appropriate local sources to determine whether a proposed activity would “significantly restrict” subsistence uses. If ~~the Refuge~~ a refuge determines that a proposal would probably result in adverse effects to subsistence use, the refuge would follow the requirements identified in Section 810 before making a final decision on the proposal.

2.12 Public Access and Transportation Management

2.12.1 Snowmachines, Motorboats, Airplanes, and Nonmotorized Surface Transportation

Section 1110(a) of ANILCA allows the use of snowmachines (during periods of adequate snow cover and frozen river conditions), motorboats, airplanes, and nonmotorized surface transportation methods for traditional activities and for travel to and from villages and homesites. Such access shall be subject to reasonable regulations to protect the natural and other values of the refuge (43 CFR 36.11). Specific areas may be closed, in accordance with these regulations, to such uses. The refuge manager is responsible for determining

when snow cover is adequate to protect the underlying vegetation and soil from damage by snowmachine use.

2.12.2 Off-Road Vehicles

The regulations in 43 CFR 36.11(g) restrict the use of off-road vehicles within refuges. The definition of off-road vehicles in 50 CFR 36.2 excludes snowmachines but includes air boats and air-cushion vehicles along with motorized wheeled vehicles. Off-road vehicles may be allowed only on designated routes or areas within Intensive and Moderate management areas or by special use permit.

2.12.3 Helicopters

Special-use permits or other authorizations are required for all helicopter landings in any area other than at designated landing areas. Exceptions include emergencies, search and rescue operations, or operations conducted by the Service (43 CFR 36.11(f)(4)).

Helicopter landings for volcano monitoring, geologic hazards evaluations, and fisheries and wildlife management activities may be authorized under special use permit or other authorization, subject to site-specific stipulations. Helicopter landings for initial-attack fire suppression must comply with operational guidance in the Alaska Interagency Wildland Fire Management Plan. Helicopter landings by commercial operators and for general public access are not allowed in designated Wilderness unless the use was established prior to designation.

2.12.4 Access to Inholdings

Section 1110(b) of ANILCA ensures adequate and feasible access, for economic or other purposes, across a refuge for any person or entity that has a valid inholding. An inholding is defined as state-owned or privately owned land, including subsurface rights underlying public lands, valid mining claims, or other valid occupancy that is within or effectively surrounded by one or more conservation system units. When a right-of-way permit is necessary under this provision (e.g., construction of permanent or long-term facilities), the Service will review and process the application in accordance with regulations in 43 CFR 36 and 50 CFR 29. Such permits are subject to terms and conditions as specified in the regulations.

2.12.5 Temporary Access

43 CFR 36.12(a)(2) defines temporary access as “limited, short-term (i.e., up to one year from issuance of the permit) access which does not require permanent facilities for access to state or private lands.” Temporary access is limited to survey, geophysical, exploratory, or other temporary uses of nonfederal lands and where access is not otherwise provided for in 43 CFR 36.10 or 43 CFR 36.11.

The Refuge Refuges will evaluate applications for temporary access across the refuge and shall issue a permit with the necessary

stipulations and conditions to ensure that the access granted is compatible with the purposes for which the refuge was established, that it complies with the provisions of Section 810 of ANILCA, and that it ensures that no permanent harm will result to ~~the resources of the Refuge~~ refuge resources.

2.12.6 Subsistence Access

See Access for Subsistence Purposes under Subsistence Use Management (section 2.11).

2.12.7 Transportation and Utility Systems

Transportation and utility systems include roads, highways, railroads, airports, pipelines, electrical transmission lines, communication systems, and related structures and facilities reasonably and minimally necessary for the construction, operation, and maintenance of such systems (Section 1102 of ANILCA). Anyone seeking to acquire a right-of-way across refuge lands for a transportation or utility system must, consistent with 43 CFR Part 36, file an application with the regional office. Regulations in 43 CFR Part 36 and 50 CFR Part 29 establish specific procedures and time constraints for application review, compliance with NEPA, decision-making, and appeals.

The Service will decide whether to approve or disapprove that portion of a transportation or utility system that would cross refuge lands, except for those on designated Wilderness. When the proposed transportation or utility system would cross a designated Wilderness Area, the Service tentatively approves or disapproves the application subject to the President's subsequent decision. If the President approves, a recommendation is submitted to Congress for final approval.

A right-of-way for a transportation or utility system across refuge lands can be granted only if the system meets the compatibility standard, the criteria outlined in Section 1104(g)(2) of ANILCA, and the regulations at 43 CFR 36.7(a)(2) and if there is no economically feasible and prudent alternative route for the system. If approved, permits issued for a transportation or utility system will contain terms and conditions as required under regulations in 43 CFR 36.9(b) and 50 CFR 29.21 through 29.24. Rights-of-way that cross Wild and Scenic River corridors cannot interfere with or impede stream flow and transportation on the river (Section 1107[b] of ANILCA and the regulations at 43 CFR 36.9[c] and [d]). Additional special requirements apply to rights-of-way for pipelines issued under the Mineral Leasing Act of 1920, 30 U.S.C. 185 (Section 1107[c] of ANILCA and the regulations at 43 CFR 36.9[d]).

~~For cases in which a transportation or utility system is proposed to cross areas in management categories that do not allow those systems, the authorization process would include consideration of a corresponding plan amendment.~~

When considering an application for a transportation or utility system, the authorization process would incorporate a corresponding conservation plan amendment to update the desired management category(s) of the affected area if the system were to be approved.

2.12.8 State Transportation Planning

Federal transportation planning regulations require each state to develop a long-range statewide transportation plan in consultation and coordination with other government agencies and the public. In Alaska, transportation projects nominated for funding are evaluated and ranked by the Alaska Department of Transportation and Public Facilities. When appropriate, ~~the Refuge~~ refuges will participate in the state transportation-planning process and provide input regarding environmental considerations of proposed projects affecting refuge lands and resources. ~~See Appendix for~~ Each refuge conservation plan will include a discussion of state-identified potential transportation and utility systems that cross refuge lands.

2.12.9 RS 2477 Rights-of-Way

The State of Alaska asserts numerous claims to roads, trails, and paths across federal lands under Revised Statute 2477 (RS 2477), a section in the Mining Act of 1866 that states, “The right-of-way for the construction of highways over public lands, not reserved for public uses, is hereby granted.” RS 2477 was repealed by the Federal Land Policy and Management Act of 1976, subject to valid existing claims.

Assertion and identification of potential rights-of-way does not establish the validity of these claims nor the public’s right to use them. The existence of all RS 2477 rights-of-way will be determined on a case-by-case basis, either through the courts or by other legally binding document. ~~The State of Alaska has identified route(s) on the Refuge it asserts may be claimed as rights of way under RS2477. See Figure in Appendix X.~~ Section 17(b) Easements. If the State of Alaska has identified routes on any given refuge it asserts may be claimed as rights-of-way under RS2477, these will be described in the conservation plan for that refuge. Typically a map of this information would appear in an appendix.

2.12.10 17(b) Easements

Section 17(b) of the Alaska Native Claims Settlement Act of December 18, 1971, authorizes the Secretary of the Interior to reserve easements on lands conveyed to Native corporations to guarantee access to public lands and waters. Easements across Native lands include linear easements (e.g., roads and trails) and site easements. Site easements are reserved for use as temporary campsites and to change modes of transportation.

The Service is responsible for administering those public easements inside and outside refuge boundaries that provide access to refuge

lands. Service authority for administering 17(b) easements is restricted to the lands within the easement. The size, route, and general location of 17(b) easements are identified on maps filed with conveyance documents. Conveyance documents also specify the terms and conditions of use, including the acceptable periods and methods of public access.

2.12.11 Navigation Aids and other Facilities

Section 1310 of ANILCA authorizes reasonable access to and operation and maintenance of existing air and water navigation aids, communications sites, and related facilities. It authorizes existing facilities for weather, climate, and fisheries research and monitoring subject to applicable laws and regulations. Reasonable access to and operation and maintenance of facilities for national defense and related air and water navigation are also provided for, including within designated Wilderness Areas.

New facilities ~~may~~ shall be authorized only after consultation with the head of the federal department or agency undertaking the establishment, operation, or maintenance and in accordance with mutually agreed to terms and conditions.

2.13 Recreation and Other Public Use

Public recreation activities compatible with refuge purposes are authorized unless specifically prohibited (50 CFR 36.31). Compatible recreation uses of ~~the Refuge~~ refuges will continue. The Refuge Administration Act priority public uses are hunting, fishing, wildlife observation, photography, and environmental education and interpretation. These uses are encouraged and will receive emphasis in ~~management of public use of the Refuge~~ public use management.

Both consumptive (e.g., hunting, fishing, and trapping) and nonconsumptive (e.g., photography and wildlife viewing) recreation uses are appropriate. Some recreational uses are incidental to others. Camping and hiking may be related to hunting, fishing, wildlife photography, or other recreational uses.

There is often a fine line between subsistence and recreation use (e.g., berry picking). Subsistence uses are addressed under Subsistence Use Management (section 2.11). When it is necessary to restrict the taking of fish and wildlife on a refuge in order to protect the continued viability of such populations, the taking of fish and wildlife for nonwasteful subsistence uses on refuges shall be accorded priority over the taking of fish and wildlife for other purposes, in accordance with Title VIII of ANILCA.

~~The Refuge~~ Refuges will be managed to provide recreation experiences in generally natural wildland settings. Recreation use would be managed consistent with the designated management area category. Intensive and Moderate Management areas will be

managed for greater concentrations of visitors than will be Minimal Management and Wilderness areas. ~~The Refuge~~ Refuges will manage all recreation use to avoid crowded conditions and to minimize adverse effects to cultural resources, fish and wildlife, wilderness, and other special values of the refuge. “Leave No Trace” will be the standard.

The least intrusive means of managing use will be employed. Education will be the primary management tool for recreation management, using brochures, maps, signs, and personal contacts. However, if voluntary methods fail, other actions may be taken. Actions that may be taken to manage recreation include limiting commercial guiding and outfitting; regulating use and access subject to the provisions of Section 1110(a) of ANILCA; and recommending changes in state and/or federal fishing, hunting, and/or trapping regulations. When necessary, recreation opportunities may be seasonally or otherwise restricted to minimize user conflicts and to protect the natural or other values of ~~the Refuge~~ a refuge.

Any restrictions on public use will follow the public participation and closure procedures at 50 CFR Part 36, 43 CFR Part 36, or other applicable regulations. State management actions available through the Master Memorandum of Understanding (~~see Appendix~~) and other state management tools will also be utilized where mutually desirable.

Management plans may be prepared for areas of relatively concentrated use.

2.14 Outreach

Outreach is two-way communication between ~~the Refuge~~ a refuge and the public to establish mutual understanding, promote public involvement, and influence public attitudes and actions. ~~The Refuge~~ Each refuge will continue to take advantage of partnership opportunities in providing these services, including working with the Alaska Natural History Association; Alaska Public Lands Information Centers; local, state, and other federal agencies; local schools; tribal governments; Alaska Native organizations; and individuals.

Use of outreach as a management tool is key to the success of many of the management activities outlined in this plan. Two outreach activities—environmental education and interpretation—are included in the six priority public uses identified in the Refuge Improvement Act. Many other activities are also available for use by the refuge staff in its outreach program, which may be developed in more detail as a step-down management plan. All outreach activities must be continually evaluated to determine whether they fulfill refuge management goals and objectives. ~~The Refuge~~ Each refuge will ensure that these services are available to all segments of the public,

including those with disabilities and those who speak languages other than English.

2.14.1 Other Outreach Activities

~~The Refuge~~ Refuges will work with the news media, attend public meetings and workshops, develop Internet home pages, invite the public to the Refuge (open houses), and foster one-on-one communication.

2.15 Recreation Facilities

Facilities may be provided to support certain recreation uses. Recreation facilities may be located on refuge lands and at administrative sites. Visitor centers and highly developed environmental education and interpretive sites may be located off refuge lands at administrative sites or other appropriate locations. Recreation facilities may include roads, trails, boat-launch sites, airstrips, campgrounds, interpretive sites, environmental education sites, visitor centers, public-use cabins, visitor-contact facilities, and signs.

All new buildings (e.g., visitor centers, restrooms, public-use cabins, and visitor-contact buildings) and additions and alterations to existing buildings will comply with current accessibility standards. Other recreation facilities are not currently covered under these standards, although access for the disabled will be considered in the design of new or upgraded facilities. As funds are available, existing buildings will be updated to meet these standards.

The level of development and appearance of facilities will be appropriate for the management category of the area in which they are located. More intensive and sophisticated facilities will be constructed in the Intensive Management category; more rustic and rudimentary facilities will occur in the other management categories.

2.15.1 Cabins

Special use permits are required for subsistence and commercial cabins. Management of existing cabins and review of proposals for construction of new cabins for traditional uses will be in accordance with the Service's cabin regulations (50 CFR 36.33). Private recreation-use cabins will not be authorized.

Public use cabins are intended to provide the public with unique opportunities to enjoy and use ~~the Refuge~~. a refuge. They also help ensure public health and safety in bad weather and emergencies.

2.15.2 Temporary Facilities

Per Section 1316 of ANILCA, ~~the Refuge~~ refuges will allow the use of temporary campsites, tent platforms, shelters, and other temporary facilities and equipment directly and necessarily related to the taking of fish and wildlife, provided these facilities are not detrimental to ~~the purposes of the Refuge~~ refuge purposes. Special use permits

may be issued for tent frames, caches, smokehouses, and other facilities. Appropriate stipulations will be included in the special use permits to ensure protection of refuge resources.

The following criteria will be considered in evaluating applications for temporary facilities:

- Where feasible, they will be located in a manner to not displace or compete with existing public uses.
- They will be located away from the vicinity of existing cabins.
- They will be located on sites that are not currently popular campsites.
- They will be located to minimize displacement of wildlife.

The following conditions may be imposed on temporary-facility special use permits:

- The time of occupancy will coincide with the state and/or federal hunting, fishing, and/or trapping season for the species for which the temporary facility is being used.
- At the end of the specified occupancy, tents and other readily portable materials will be removed.
- To the extent feasible, temporary structures will be built with materials that blend into and are compatible with the surrounding landscape.
- To the extent feasible, temporary facilities will be screened from water and located so that they are as unobtrusive as possible when viewed from trails and areas of significant public use.

2.16 Commercial-Use Management

Commercial uses are activities involving use of a refuge or its resources for a profit. Subsistence uses are not included in commercial uses. Refer to section 2.11 for policies related to subsistence.

Except for mining on valid claims under the 1872 Mining Law, other activities where specific property rights are held by entities other than the federal government, or where specifically exempted by law, all commercial uses must comply with both NEPA and the compatibility requirements of the National Wildlife Refuge System Administration Act. A written authorization (such as a special use permit) is required to conduct commercial activities on any refuge. Compliance with NEPA and a compatibility determination will be required prior to deciding whether to authorize a commercial use. Prior to authorizing any economic use of a natural resource, the refuge manager must determine that each use, except for proposed activities authorized by ANILCA, contributes to the achievement of refuge purposes or the National Wildlife Refuge System mission (50

CFR 29.1). See Section 2.18 for restrictions on commercial activities within designated Wilderness Areas.

2.16.1 Mineral Exploration and Development

Oil and Gas Assessment

Geological and geophysical studies, including subsurface core sampling and seismic activities, require special use permits with site-specific stipulations that ensure compatibility with refuge purposes and consistency with the management objectives of this plan. Decisions to allow exploration will be made on a case-by-case basis. Other than the rights reserved to the United States under Section 1010(a) of ANILCA, these activities will not be allowed in designated Wilderness.

Oil and Gas Leasing

Oil and gas leasing may be allowed only in Intensive Management areas. Oil and gas leasing will not be authorized until completion of the following:

- An assessment of potential
- A national interest determination
- A compatibility determination, where applicable
- A comprehensive conservation plan amendment

During this process, the Service will seek the views of state and local governments and other interested parties, in accordance with Section 1008(b)(2) of ANILCA.

If leasing is authorized, lease holders will be subject to federal leasing regulations (43 CFR 3100) and appropriate state regulations. Leases will be subject to stipulations on access, seasonal use, and site revegetation; operators would be required to use technology that minimizes impacts on fish, wildlife, and habitat. ~~The Refuge~~ [Refuges](#) will work closely with leaseholders to minimize adverse effects of mineral exploration and extraction on Refuge resources and recreation opportunities.

Sand, Gravel, and Other Common Variety (Saleable) Minerals

Common variety minerals—such as sand, gravel, stone, limestone, pumice, pumicite, cinders, and clay—may be sold pursuant to the Materials Act of July 31, 1947 (30 U.S.C. 601, 602), as amended. Regulations are found at 43 CFR 3600. Disposal is also authorized under the Refuge Revenue Sharing Act (16 U.S.C. 715s). Also see Part 612 FW 1 of the Service Manual. Extraction may be authorized, where compatible, in Intensive and Moderate management areas to support construction and maintenance projects on or near refuge lands if no reasonable material sites exist off refuge lands.

Other Mineral Leasing

In general, mineral leasing is not allowed on refuge land. Geothermal leasing is not allowed on the refuge under Section 1014(c) of the

Geothermal Steam Act (30 U.S.C. 1014). Coal mining is also prohibited, subject to valid existing rights, under Section 16 of the Federal Coal Leasing Amendment Act of 1975 (30 U.S.C. 201 Notes) and the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1272; 43 CFR 3400.2). In specific cases of national need, however, mineral exploration, development, or extraction may be permitted under Section 1502 of ANILCA. The President must determine that the national need for the mineral activity outweighs the other public values of the land. Any recommendation by the President would take effect only after enactment of a joint resolution by Congress.

Alaska Mineral Resource Assessment Program

Section 1010 of ANILCA requires that all federal lands be assessed for their oil, gas, and other mineral potential, although Section 304(c) prohibits new hardrock mining on refuges. Mineral assessment techniques that do not have lasting impacts—such as side-scanning radar, trenching, and core drilling—may be allowed throughout ~~the~~ **Refuge** **a refuge**. Special use permits issued to other government agencies or their contractors for assessment work would include stipulations to ensure that the assessment program is compatible with refuge purposes. For example, stipulations may limit access during nesting, calving, spawning, or other times when fish and wildlife may be especially vulnerable to disturbance.

2.16.2 Commercial Recreation Services

Air-taxi and water-taxi operators, wildlife-viewing guides, tour operators, wilderness guides, recreational fishing guides, big-game hunting guides, and others providing recreation services are required, under 50 CFR 27.97, to obtain special use permits to operate on Refuge lands. Where the number of special use permits is limited, refuge managers will award permits competitively (see 50 CFR 36.41). Special use permits require compliance with all applicable laws and regulations (e.g., United States Coast Guard licensing regulations). Permit stipulations ensure that camps; travel methods; storage of food, fish, and game meat; and activities are compatible with refuge purposes and reduce the potential for impacts to resources and to other refuge users. If problems arise relating to commercial recreation activities—such as disturbance of active nests, conflicts with subsistence use, chronic incidence of bears getting into food, or violations of state or federal regulations—the refuge may modify or terminate use under the special use permit stipulations. ~~The Refuge~~ **Refuges** will monitor the number and type of guides and outfitters operating in the refuge and the number of their clients and will, if necessary, further regulate use.

Under Section 1307 of ANILCA, local preference is provided for all new commercial visitor services except guiding for recreational hunting and fishing. Regulations defining local preference are in 50 CFR 36.37.

2.16.3 Commercial Fishing and Related Facilities

Under Section 304(d) of ANILCA, the Service will continue to allow individuals with valid commercial fishing rights or privileges to operate on ~~the Refuge~~ *a refuge*. The use of campsites, cabins, motor vehicles, and aircraft on ~~the Refuge~~ *a refuge* in support of commercial fishing is subject to reasonable regulation. Section 304(d) provides for restricting commercial fishing rights if the use is determined to be inconsistent with refuge purposes *and* to be a “significant expansion of commercial fishing activities . . . beyond the level of such activities during 1979.” The Service recognizes that fishery levels are cyclic and will take that into consideration when applying the 1979-level criteria. Any new fishery and related facilities and equipment will have to meet the compatibility standard.

Aquaculture and mariculture support facilities may be allowed in Intensive Management, subject to provisions of state and federal laws. Seafood processing plants will not be allowed.

2.16.4 Commercial Harvest of Timber and Firewood

Commercial harvest of timber and firewood will only be authorized under a special use permit and when necessary to fulfill overall refuge management objectives. Within Moderate, Minimal and Wild River management categories, commercial harvest of timber and firewood to accomplish management objectives will only occur when an approved refuge fire management plan identifies the need to reduce fuel loads in an area. Applicable federal and State of Alaska guidelines for timber management will be followed.

2.16.5 Commercial Gathering of Other Resources

Gathering other resources (e.g., antlers and mushrooms) requires a special use permit under 50 CFR 27.51.

2.16.6 Commercial Filming and Recording Activities

It is Service policy to provide refuge access and/or assistance to firms and individuals in the pursuit of commercial visual and audio recordings. Such access or assistance will not be provided if visual and audio recordings are incompatible with refuge purposes or the mission of the National Wildlife Refuge System. Commercial films, television production, or sound tracks made within refuges for other than news purposes require a special use permit or authorization (see 43 CFR 5.1).

Commercial filming or recording activities such as videotaping, audio taping, and photography for the purpose of advertising products and services are subject to an A/V Production Permit (see Refuge Manual 8 RM Section 16).

Permits are not required for still photography on refuge lands open to the general public, including commercial still photography so long as no models or props which are not a part of the site’s natural or

cultural resources or administrative facilities are used (16 U.S.C. 460l-6d).

2.16.7 Other Commercial Uses

Generally, other commercial uses such as grazing, agriculture, and hydroelectric power development will not be allowed. An exception may be made for low-head or small run-of-the-river hydropower facilities. These may be authorized on a case-by-case basis. See section 2.12.7 for transmission lines, pipelines, and other rights-of-way mentioned in Title XI of ANILCA.

2.17 Environmental Contaminants Identification and Cleanup

One goal of the Refuge Administration Act is to maintain the biological integrity, diversity, and environmental health of the system. In support of this goal, the Service ~~has studied~~ studies environmental contaminants that may threaten trust species (i.e., those species for which the Service has primary jurisdiction) and other refuge resources. This work will continue as new concerns are identified and as funding allows.

An assessment of known or suspected contaminants threats is normally completed for each refuge ~~Refuge is planned to start in (was completed in)~~ as part of the national Contaminants Assessment Process. During conservation plan revisions, existing information ~~for the Refuge~~ will be reviewed, and an assessment of potential contaminants threats will be entered into an electronic database. A contaminant assessment report will also be prepared.

When contaminants are identified on refuge lands, the Service will initiate discussions with the responsible party or parties to remedy the situation. If the Service caused the contamination, funds will be sought to define the extent and type of the contamination and to remedy it. Appropriate environmental regulations—including the Resource Conservation Recovery Act, Comprehensive Environmental Response and Compensation Liability Act, Oil Pollution Act of 1990, and State of Alaska regulations (e.g., 18 AAC 75)—would be followed during remediation work.

All spills of petroleum products and hazardous materials must be reported to the Alaska Department of Environmental Conservation and to the National Response Center. Incidents also need to be reported to the U.S. Fish & Wildlife Service Regional Spill Response Coordinator. ~~The Refuge~~ Refuges will refer to the U.S. Fish & Wildlife Service Region 7 Spill Response Contingency Plan when responding to spills.

2.18 Management of Designated Wilderness Designated

Wilderness will be managed in accordance with the Wilderness Act of 1964, as modified by provisions of ANILCA; Service guidelines as found in the Refuge Manual (6 RM 8 and Part 610 of the Service Manual, when approved); and regional policy. Maintaining wilderness values and resources, preserving the wilderness character of the biological and physical resources, and providing opportunities for research and recreation are the management focuses for designated Wilderness. A minimum-requirements analysis will be conducted for management activities proposed in Wilderness Areas. This two-step process involves determining if an essential task should be conducted in the Wilderness Area and then determining the combination of methods, equipment, or administrative practices necessary to successfully and safely administer the refuge and accomplish Wilderness management objectives.

Certain activities are legislatively prohibited in designated Wilderness, including oil, gas, and other mineral leasing and most surface-disturbing activities. Other activities—including subsistence use, access for traditional activities, and traditional commercial recreation activities (e.g., guiding and outfitting)—will continue to be allowed where compatible with Wilderness Management and refuge and system purposes. Other commercial enterprises—such as fishery-enhancement activities with a primary purpose of enhancing commercial fishing operations—are not allowed.

Generally, motorized and mechanized equipment and transport are prohibited by the Wilderness Act. Several exceptions, however, were identified in ANILCA:

-
- For access for subsistence purposes (Section 811).
- For access for traditional activities and to and from villages and homesites (Section 1110[a]).
- For access to state or privately owned lands (including subsurface rights), valid mining claims, or other valid occupancy (Section 1110 [b]).
- For mineral assessment purposes, as part of the Alaska Mineral Resource Assessment Program (Section 1010).

Details of these provisions can be found under the appropriate heading in this section of this conservation plan.

Under 50 CFR 35.5(b), regional policy (RW-16) allows local residents engaged in subsistence activities to use chainsaws. Other motorized and mechanized equipment not related to transportation (such as generators and water pumps) are not allowed.

Granting rights-of-way for transportation or utility systems through designated Wilderness requires a Presidential recommendation for Congressional approval (Section 1106[b] of ANILCA) (see Section 2.12.7).

A step-down management plan may be prepared for designated Wilderness to address in greater detail the resources, uses, and management of the Wilderness Area. Specific details would be included on how the broad management directions provided in the conservation plan would be applied in designated Wilderness to protect the specific wilderness characteristics identified in the conservation plan. The step-down plan would be prepared in cooperation with and would include appropriate public involvement.

2.19 Administration of National Wildlife Refuge

2.19.1 Administrative Sites and Visitor Facilities

Administrative sites include temporary and permanent field camps, residences, offices, and associated storage, communication, and transportation facilities. The type of administrative site and level of development will be consistent with the management intent of the management category in which they are constructed. Administrative field camps or other administrative facilities within Minimal, Wild River and Wilderness management categories will only be allowed when required to meet management objectives, when no reasonable alternative sites exist, and when the facilities are essential to protect the health and safety of employees. New facilities would only be the minimum required to meet long-term needs.

Fuel storage or other hazardous-material storage in conjunction with administrative sites will meet all federal and state requirements for spill containment and storage. Hazardous materials stored within the Wild River and Wilderness management categories will be in small (55-gallon or less) containers.

Under Section 1306 of ANILCA, the Secretary may establish administrative sites and visitor facilities, either within or outside the boundaries of a conservation system unit, in accordance with the unit's management plan and for the purposes of ensuring the preservation, protection, and proper management of said unit. This section further states that to the "extent practicable and desirable, the Secretary shall attempt to locate such sites and facilities on Native lands in the vicinity of the unit."

Department of Interior guidelines, developed in 1995, implementing Section 1306 of ANILCA require that prior to initiating a search for an administrative site or visitor facility, site-selection criteria be developed, with public input, and all proposals be evaluated according to the site-selection criteria. If it is determined that Native lands satisfy the site-selection criteria and are desirable and practicable for the intended use, the highest-ranked Native lands shall be selected as the preferred site, subject to a specific site evaluation. If no Native lands satisfy the site-selection criteria, the highest-ranked parcel will become the preferred site. Public comments will be considered prior to making a final decision.

Applicability of Refuge Regulations to Off-Refuge Administrative and Visitor Facility Sites

Part 50 of CFR 36.1(c) authorizes the Service to enforce regulations concerning public safety and protection of government property, as well as State of Alaska fish and wildlife regulations, on administrative and visitor facility sites that may be held in fee or less-than-fee title and are either inside or outside the approved boundaries of any Alaska national wildlife refuge.

2.19.2 Refuge Management Plans

Some management programs are addressed in sufficient detail in the conservation plans to be integrated directly into the budgetary process. For other programs, it may be necessary to prepare step-down management plans to implement general strategies identified in the conservation plan. Additional information on the step-down planning process can be found in Part 602 FW 3 of the Service Manual.

A list of required step-down management plans will be included in each conservation plan.

~~The following step-down management plans for Refuge are required:~~

3. Management Categories Table

3.1 Explanatory Notes

The descriptions of the management categories reflect a clear distinction in the level of action, type of action, and constraints that may be placed on activities or development within the management categories. They should be used to reflect the desired future condition of the area when site specific proposals are being evaluated. Activities allowed or authorized within the different categories will be managed differently depending on the management category in which they occur.

3.2 Key for Management Categories Table

The following are definitions for terms used in the table.

Allowed—Activity, use or facility is allowed under existing NEPA analysis, compatibility determinations, and applicable laws and regulations of the Service, other Federal agencies and the State of Alaska.

May be allowed—Activity, use or facility may be allowed subject to site-specific NEPA analysis, a specific compatibility determination, and compliance with all applicable laws and regulations of the Service, other Federal agencies and the State of Alaska.

May be authorized—Activity, use or facility **may be allowed**; a special use permit or other authorization is required.

Not allowed—Activity, use or facility is not allowed.

The following terms are used:

NEPA analysis—All activities, uses and facilities proposed for a refuge that have the potential to result in significant effects on the environment require an analysis of potential environmental impacts under the National Environmental Policy Act. This analysis may be documented as a categorical exclusion (CE), an environmental assessment (EA), or an environmental impact statement (EIS), depending on the nature of the proposed project.

Compatibility—All activities, uses and facilities allowed on a refuge, except management actions undertaken by or for the Service, must be compatible with the purposes of the refuge and the mission of the National Wildlife Refuge System. The analysis that occurs results in a compatibility determination. Management activities undertaken by the Service or by volunteers, cooperators, or contractors working for the Service, with limited exception, are exempt from compatibility review (Part 603, Compatibility, of the Service Manual).

Regulations—All activities, uses and facilities allowed on a refuge must comply with any applicable regulations, as published in the Code of Federal Regulations. Regulations are developed by the Service through a public process to implement the legal authorities under which the Service manages the National Wildlife Refuge System. For more information on these regulations, see the appropriate topic in the Management Directions and Guidelines section of this chapter. For some activities, other Federal agency and/or State regulations may also apply.

Temporary—A continuous period of time not to exceed 12 months, except as specifically provided otherwise. Special-use permits or other authorizations may prescribe a longer period of time but the structures or other human-made improvements need to be readily and completely dismantled and removed from the site when the period of authorized use terminates.

The following guidelines apply to all activities, uses, and facilities allowed on a refuge.

Area or time restrictions—All activities and uses allowed on a refuge may be restricted in certain areas or at certain times, at the discretion of the refuge manager and with the appropriate level of public involvement, by emergency (short-term) or permanent regulation, if necessary to protect refuge resources or human health and safety.

Management emergencies—Activities, uses and facilities not allowed on a refuge or in specific management categories may be allowed if naturally occurring or human-caused actions adversely affect refuge resources or threaten human health and safety.

Table 1. Activities, public uses, commercial uses, and facilities by management category

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
ECOSYSTEM, HABITAT, AND FISH AND WILDLIFE MANAGEMENT					
Ecosystem and Landscape Management					
Collecting Information on and Monitoring Ecosystem Components Data gathering, monitoring and maintaining a comprehensive data base of selected ecosystem components (plants, animals, fish, water, air).	Allowed; see sections 2.10.1 and 2.10.2	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 2.18
Research and Management Access and collection of data necessary for management decisions or to further science.	Service—Allowed	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 2.18
	ADF&G—Coordinate with Refuge Manager; see sections 2.7.1 and 2.10				
	Other researchers—May be allowed				
Research and Management Facilities May be permanent or temporary structures or camps including weirs, counting towers and sonar counters.	May be allowed; see section 2.19.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 1.4	Same as Intensive Management; consistent with sections 1.5 and 2.18
Fish and Wildlife Habitat Management					
Describing, Locating, and Mapping Habitats Development of quantitative, written, and graphic descriptions of fish and wildlife habitat including water, food, and shelter components.	Allowed; see section 2.10.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 2.18

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
Habitat Management <i>Mechanical Treatment</i> Activities such as cutting, crushing or mowing of vegetation; water control structures; fencing; artificial nest structures. <i>Chemical Treatment</i> Use of chemicals to remove or control nonnative species. <i>Manual Treatment</i> Use of hand tools to remove, reduce, or modify hazardous plant fuels, exotic plant species, or to modify habitats (e.g. remove beaver dams).	May be allowed; see section 2.9.1 May be allowed; see sections 2.9.1 and 2.9.3 Allowed; see section 2.9.1	Same as Intensive Management Same as Intensive Management Same as Intensive Management	Not allowed; with exceptions consistent with section 1.3 Same as Intensive Management Same as Intensive Management	Same as Minimal Management; with exceptions consistent with section 1.4 Same as Intensive Management Same as Intensive Management	Same as Minimal Management; with exceptions consistent with section 1.5. See also section 2.18 Same as Intensive Management. See also section 2.18 Same as Intensive Management. See also section 2.18
Aquatic Habitat Modifications Activities such as stream bank restoration, passage structures, fish barriers, or removal of obstacles which result in physical modification of aquatic habitats to maintain or restore native fish species.	May be allowed; see sections 2.9.1 and 2.10.10	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management; consistent with section 1.4	Same as Intensive Management; consistent with section 1.5. See also section 2.18
Fire Management—Prescribed Fires Fire ignited by management actions to meet specific management objectives.	May be allowed; see section 2.9.2	Same as Intensive Management	Same as Intensive Management; consistent with section 1.3	Same as Intensive Management; consistent with section 1.4	Same as Intensive Management; consistent with sections 1.5 and 2.18
Fire Management—Wildland Fire Use The planned use of naturally occurring fires to meet management objectives.	May be allowed; see section 2.9.2	Same as Intensive Management	Same as Intensive Management; consistent with section 1.3	Same as Intensive Management; consistent with section 1.4	Same as Intensive Management; consistent with sections 1.5 and 2.18
Fire Management—Fire Suppression Management actions intended to protect identified	Allowed; see section 2.9.2	Same as Intensive Management	Same as Intensive Management.	Same as Intensive Management.	Same as Intensive Management.

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
resources from a fire, extinguish a fire, or alter a fire's direction of spread.			See also section 1.3	See also section 1.4	See also sections 1.5 and 2.18
Weed Control Monitoring, extirpation, control, removal and/or relocation and other management practices for pest and nonnative plant species.	May be allowed; see section 2.9.3	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 2.18
Water Quality and Quantity Management Monitoring of water quality and quantity to identify baseline data and for management purposes; includes installation of gauging stations.	Allowed; see section 2.8.2	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 2.18
Fish and Wildlife Population Management					
Reintroduction of Species The reintroduction of native species to restore natural diversity of fish, wildlife and habitats.	May be allowed; see section 2.10.6	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 2.18
Fish and Wildlife Control The control, relocation, sterilization, removal or other management of native species including predators to maintain natural diversity of fish, wildlife and habitats; favor other fish or wildlife populations; protect reintroduced, threatened, or endangered species or to restore depleted native populations.	May be allowed; see section 2.10.7	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 2.18
Nonnative Species Management The removal or control of nonnative species (including predators).	May be allowed; see section 2.10.8	Same as Intensive Management	Same as Intensive Management; use least intrusive methods.	Same as Minimal Management	Same as Minimal Management. See also section 2.18
Pest Management and Disease Prevention and Control Relocation or removal of organisms that threaten human health or survival of native fish, wildlife or plant species. Management practices directed at controlling pathogens that threaten fish, wildlife and people, such as rabies and parasite control.	May be allowed; see section 2.10.9	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 2.18

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
Fishery Restoration Actions taken to restore fish access to spawning and rearing habitat, or actions taken to restore populations to historic levels. Includes harvest management, escapement goals, habitat restoration, stocking, egg incubation boxes, and lake fertilization.	May be allowed; see section 2.10.10	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 2.18
Fishery Restoration Facilities Fisheries facilities may be permanent or temporary and may include hatcheries, fish ladders, fish passages, fish barriers and associated structures.	May be authorized; see sections 2.10.10 and 2.19.1	Same as Intensive Management	Same as Intensive Management. See also section 1.3	Same as Intensive Management. See also section 1.4	Same as Intensive Management. See also sections 1.5 and 2.18
Fishery Enhancement Activities applied to a fish stock to supplement numbers of harvestable fish to a level beyond what could be naturally produced based upon a determination or reasonable estimate of historic levels.	May be allowed; see section 2.10.11	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management; consistent with section 2.18
Fishery Enhancement Facilities May be permanent or temporary and may include hatcheries, egg incubation boxes, fish ladders, fish passages, fish barriers and associated structures.	May be authorized; see sections 2.10.11 and 2.19.1	Same as Intensive Management	Same as Intensive Management. See also section 1.3	Same as Intensive Management. See also section 1.4	Same as Intensive Management. See also sections 1.5 and 2.18
Native Fish Introductions Movement of native fish species within a drainage on the Refuge to areas where they have not historically existed.	May be allowed; see section 2.10.6	Same as Intensive Management	Not allowed	Same as Minimal Management	Same as Minimal Management
Nonnative Species Introductions Introduction of species not naturally occurring within a watershed.	Not allowed; see section 2.10.6	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
SUBSISTENCE					
Subsistence Activities					
Fishing, Hunting, Trapping, and Berry Picking The taking of fish and wildlife and other natural resources for personal consumption, as provided by law.	Allowed; see section 2.11	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Collection of House Logs and Firewood <u>Harvesting</u> live standing timber greater than 6 inches	May be authorized; see	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
diameter at breast height for personal or extended family use.	section 2.11				
Collection of House Logs and Firewood Harvesting live trees less than 3 inches diameter at breast height and dead standing or down timber for personal or extended family use.	Allowed; see section 2.11	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Collection of House Logs and Firewood Harvesting live trees between 3 and 6 inches diameter at breast height for personal or extended family use.	May be authorized; see section 2.11	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Collection of Other Plant Materials Harvesting trees less than 6 inches diameter at breast height for trapping and other purposes; harvesting grass, bark, other plant materials used as food, in making handicrafts, or for other subsistence purposes.	Allowed; see section 2.11	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Temporary Facilities Establishment and use of tent platforms, shelters, and other temporary facilities and equipment directly related to the taking of fish and wildlife.	Allowed; see section 2.15.2	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Subsistence Cabins	See Cabins and section 2.15.1				
Subsistence Access					
Access Use of snowmobiles, motorboats, and other means of surface transportation traditionally employed for subsistence purposes.	Allowed; see section 2.11.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
<p style="text-align: center;">ACCESS</p> <p style="text-align: center;">Restrictions subject to provisions of Section 1110 of ANILCA as applicable; see also Subsistence Access section above.</p>					
Nonmotorized					
Foot	Allowed; see sections 2.12.1 and 2.13	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Dogs and Dog Teams	Allowed; see	Same as Intensive	Same as Intensive	Same as Intensive	Same as Intensive

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
	sections 2.12.1 and 2.13	Management	Management	Management	Management
Other Domestic Animals Includes horses, mules, llamas, and other domestic animals.	Allowed; see sections 2.12.1 and 2.13	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Bicycles Includes all types of bicycles, e.g. road, BMX, mountain, etc.	Allowed; see sections 2.12.1 and 2.13	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Nonmotorized Boats Includes canoes, kayaks, rafts, etc.	Allowed; see sections 2.12.1 and 2.13	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Motorized					
Motorboats Includes inboard and outboard motor power boats including jet boats; does not include jet driven personal water craft, air boats and air cushion vehicles.	Allowed; see sections 2.12.1 and 2.13	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Highway Vehicles	Allowed on all weather roads.	May be allowed on designated roads.	Not allowed	Same as Minimal Management	Same as Minimal Management
Off-Road Vehicles (All-Terrain Vehicles) Includes air boats and air cushion vehicles.	May be allowed; see section 2.12.2	Same as Intensive Management	Not allowed; <u>with exceptions consistent with section 2.12.2. See also section 2.11.1</u>	Same as Minimal Management	Same as Minimal Management
Airplanes Fixed-wing aircraft such as float planes and wheeled planes.	Allowed; see sections 2.12.1 and 2.13	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Helicopters Includes all rotary-wing aircraft.	May be authorized; see section 2.12.3	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management; consistent with sections 1.5 and 2.18

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
Snowmachines (Snowmobiles) A self-propelled vehicle intended for off-road travel primarily on snow having a curb weight of not more than 1,000 pounds (450 kg), driven by track or tracks in contact with the snow.	Allowed; see sections 2.12.1 and 2.13	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
PUBLIC USE, RECREATION, and OUTREACH ACTIVITIES Also see ACCESS and Commercial Recreation sections.					
Hunting*, Fishing*, Trapping, Walking, Hiking, Camping at Undeveloped sites, Wildlife Observation*, and Dog Sledding Note: * = priority public use	Allowed; see sections 2 and 2.13	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Wildlife Photography* and General Photography— Also see COMMERCIAL USES. Note: * = priority public use	Allowed; see sections 2 and 2.13	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Boating and Snowmachining Motorized and nonmotorized boating (excluding air boats and air cushion vehicles) and snowmachining. Also see ACCESS.	Allowed; see sections 2, 2.12.1, and 2.13	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Interpretation*, Environmental Education*, and Other Outreach Activities Note: * = priority public use	Allowed; see section 2.14. See also section 1.1	Same as Intensive Management. See also section 1.2	Same as Intensive Management. See also section 1.3	Same as Intensive Management. See also section 1.4	Same as Intensive Management. See also section 1.5
Public Use and Recreation Facilities					
Recreational Use Facilities Facilities provided by the Service.	May be allowed; see section 2.15. See also section 1.1	Same as Intensive Management. See also section 1.2	Same as Intensive Management. See also section 1.3	Same as Intensive Management. See also section 1.4	Same as Intensive Management. See also sections 1.5 and 2.18
All Weather Roads And associated developments including bridges.	May be allowed; see section 2.15	Same as Intensive Management. See also section 1.2	Not allowed	Same as Minimal Management	Same as Minimal Management
Unimproved Roads	May be allowed;	Same as Intensive	Not allowed	Same as Minimal	Same as Minimal

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
	see section 2.15	Management		Management	Management
Off-Road Vehicle (All-Terrain Vehicle) Trails and Routes	May be allowed; see section 2.15	Same as Intensive Management	Not allowed	Same as Intensive Management	Same as Minimal Management
Roadside Exhibits and Waysides	May be allowed; see section 2.15	Same as Intensive Management	Not applicable	Not applicable	Not applicable
Constructed and Maintained Airstrips	May be allowed; see section 2.15	Same as Intensive Management	Not allowed	Same as Minimal Management	Same as Minimal Management
Cleared Landing Strips and Areas	May be allowed; see section 2.15	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Not allowed; see section 2.18
Constructed Hiking Trails Includes bridges, boardwalks, trailheads, and related facilities.	May be allowed; see section 2.15. See also section 1.1	Same as Intensive Management. See also section 1.2	Same as Intensive Management. See also section 1.3	Same as Intensive Management; consistent with section 1.4	Same as Intensive Management; consistent with sections 1.5 and 2.18
Designated Hiking Routes Unimproved and unmaintained trails; may be designated by signs, cairns, and/or on maps.	Allowed; see section 2.15. See also section 1.1	Same as Intensive Management. See also section 1.2	Same as Intensive Management; consistent with section 1.3	Same as Intensive Management; consistent with section 1.4	Same as Intensive Management; consistent with sections 1.5 and 2.18
Boat Launches and Docks Designated sites for launching and storing watercraft.	May be allowed; see section 2.15. See also section 1.1	Same as Intensive Management. See also section 1.2	Same as Intensive Management. See also section 1.3	Same as Intensive Management. See also section 1.4	Same as Intensive Management. See also sections 1.5 and 2.18
Visitor Contact Facilities A variety of staffed and unstaffed facilities providing information on the refuge and its resources to the public; facilities range from visitor centers to kiosks and signs.	May be allowed; see sections 2.15. See also section 1.1	Same as Intensive Management; consistent with section 1.2	Same as Intensive Management; consistent with section 1.3	Same as Intensive Management; consistent with section 1.4	Generally not allowed; see sections 1.5 and 2.18
Campgrounds Developed sites accessible by highway vehicles.	May be allowed; see section 2.15. See also section 1.1	Same as Intensive Management; consistent with section 1.2	Not allowed	Same as Minimal Management	Same as Minimal Management
Hardened Campsites Areas where people can camp that are accessible by vehicle or on foot but where the only facilities provided	Allowed; see section 2.15. See also section	Same as Intensive Management. See also section	Same as Intensive Management. See also section	Same as Intensive Management. See also section 1.4	Same as Intensive Management; consistent with

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
are for public health and safety and/or resource protection; may include gravel pads for tents, hardened trails, and/or primitive toilets.	1.1	1.2	1.3		sections 1.5 and 2.18
Temporary Facilities Includes tent frames, caches, and other similar or related facilities; does not include cabins. See also subsistence, administrative facilities, and commercial uses.	Allowed; see section 2.15.2	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Cabins (and other related structures such as outdoor toilets, food caches, storage sheds, and fish drying racks)					
Public Use Cabin A cabin administered by the Service and available for use by the public; intended only for short-term public recreational use and occupancy.	Existing cabins allowed to remain; new cabins may be allowed; see section 2.15.1	Same as Intensive Management	Same as Intensive Management; consistent with section 1.3	Same as Intensive Management; consistent with section 1.4	Same as Intensive Management; consistent with sections 1.5 and 2.18
Administrative Cabin Any cabin primarily used by refuge staff or other authorized personnel for the administration of the refuge.	May be allowed; see section 2.19.1	Same as Intensive Management	Same as Intensive Management; consistent with section 1.3	Same as Intensive Management; consistent with section 1.4	Same as Intensive Management; consistent with sections 1.5 and 2.18
Subsistence Cabin Any cabin necessary for health and safety and to provide for the continuation of ongoing subsistence activities; not for recreational use.	Existing cabins allowed to remain; new cabins may be authorized; see section 2.15.1	Same as Intensive Management	Same as Intensive Management; consistent with section 1.3	Same as Intensive Management; consistent with section 1.4	Same as Intensive Management; consistent with sections 1.5 and 2.18
Commercial Cabin Any cabin which is used in association with a commercial operation including but not limited to commercial fishing activities and recreational guiding services.	Existing cabins allowed to remain; new cabins may be authorized; see section 2.15.1	Same as Intensive Management	Same as Intensive Management; consistent with section 1.3	Same as Intensive Management; consistent with section 1.4	Existing cabins (pre-designation) same as Intensive Management; new cabins not allowed.

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
Other Cabins Cabins associated with authorized uses by other government agencies.	May be allowed	Same as Intensive Management	Same as Intensive Management; consistent with section 1.3	Same as Intensive Management; consistent with section 1.4	Same as Intensive Management; consistent with sections 1.5 and 2.18
Administrative Facilities (for a detailed discussion of building requirements for administrative facilities see Appendix nn)					
Administrative Field Camps Temporary facilities used by refuge staff and other authorized personnel to support individual (generally) field projects; may include, but not limited to, tent frames and temporary/portable outhouses, shower facilities, storage/maintenance facilities, and caches.	May be allowed; see section 2.19.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management; consistent with sections 1.5 and 2.18
Administrative Field Sites Permanent facilities used by refuge staff or other authorized personnel for the administration of the refuge. Includes administrative cabins and related structures (see Cabins above) and larger multi-facility administrative sites necessary to support on-going field projects, research, and other management activities. Temporary facilities, to meet short-term needs, may supplement the permanent facilities at these sites.	Use of existing sites allowed including replacement of existing facilities as necessary; new sites may be allowed; see section 2.19.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management; consistent with sections 1.5 and 2.18
Refuge Administrative Office Complex Facilities necessary to house refuge operations, outreach, and maintenance activities, and associated infrastructure; includes staff offices, storage, maintenance, and other facilities, parking lots, and so forth <u>other similar facilities.</u>	May be allowed; see section 2.19.1	Not allowed	Same as Moderate Management	Same as Moderate Management	Same as Moderate Management
Hazardous Materials Storage Sites including appropriate structures and equipment necessary for the storage and transfer of fuels and other hazardous materials used for administrative purposes; must be in compliance with all Federal and State requirements.	May be allowed; see section 2.19.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 1.4	Same as Intensive Management. See also sections 1.5 and 2.18

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
Residences Residential housing for refuge staff and their families; includes single and multi-family dwellings.	May be allowed; see section 2.19.1	Not allowed	Same as Moderate Management	Same as Moderate Management	Same as Moderate Management
Bunkhouses Quarters to house temporary and similar employees, volunteers, visitors, and other agency personnel.	May be allowed; see section 2.19.1	Same as Intensive Management	Not allowed	Same as Minimal Management	Same as Minimal Management
Boat Launching Sites and Docks	See Public Use and Recreation Facilities				
Float-Plane Bases Improved sites for docking and storage of float- equipped aircraft.	May be allowed; see section 2.19.1	Same as Intensive Management	Not allowed	Same as Minimal Management	Same as Minimal Management
Aircraft Hangars Facilities for storage of aircraft.	May be allowed; see section 2.19.1	Not allowed	Same as Moderate Management	Same as Moderate Management	Same as Moderate Management
Radio Repeater Sites Sites used to maintain radio communications equipment; may include helispots for access.	May be allowed; see section 2.19.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management; consistent with section 1.4	Same as Intensive Management; consistent with sections 1.5 and 2.18
<p align="center">COMMERCIAL USES</p> <p>(Does not include subsistence use; see SUBSISTENCE section of this table. Except as specifically noted, a written authorization in the form of <u>authorization document</u> is required for economic use of a refuge. <u>Also see Subsistence Activities section.</u></p>					
Mineral Exploration					
Surface Geological Studies Includes surface rock collecting and geological mapping activities (includes helicopter or fixed-wing access).	May be authorized; see section 2.16.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
Geophysical Exploration and Seismic Studies Examination of subsurface rock formations through devices that set off and record vibrations in the earth. Usually involves mechanized surface transportation, but may be helicopter supported; includes studies conducted for the Department of the Interior.	May be authorized; see section 2.16.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Not allowed; with exceptions consistent with section 2.16.1
Core Sampling Using helicopter transported motorized drill rig to extract subsurface rock samples; does not include exploratory wells; includes sampling conducted for Department of the Interior.	May be authorized; see section 2.16.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Not allowed; with exceptions consistent with section 2.16.1
Other Geophysical Studies Helicopter-supported gravity and magnetic surveys and other minimal impact activities that do not require mechanized surface transportation.	May be authorized; see section 2.16.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Not allowed; with exceptions consistent with section 2.16.1
Mineral Development					
Oil and Gas Leasing Leasing, drilling and extraction of oil and gas for commercial purposes. Includes all associated above and below ground facilities.	May be authorized; see section 2.16.1	Not allowed; see section 2.16.1	Same as Moderate Management	Same as Moderate Management	Same as Moderate Management
Sale of Sand, Gravel, and Other Common Variety Minerals Extraction of sand, gravel, and other saleable minerals for commercial purposes; includes commercial use by federal, state, and local agencies.	May be authorized; see section 2.16.1	Same as Intensive Management	Not allowed	Same as Minimal Management	Same as Minimal Management
Other Mineral Leasing Includes the extraction of coal, geothermal resources, potassium, sodium, phosphate, sulfur, or other leaseable minerals for commercial purposes.	Not allowed; see section 2.16.1	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
Mining of Hardrock Minerals Development of valid (pre-ANILCA) mining claims (lode, placer, and mill sites) on refuge lands for the purpose of extracting hardrock minerals.	Allowed; only on valid claims; see section 2.16	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Commercial Recreation —Includes all forms of guiding, including those operated by nonprofit, educational, and other noncommercial groups					
Guiding and Outfitting	May be authorized; see section 2.16.2	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Transporting	May be authorized; see section 2.16.2	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Fixed-Wing Air Taxis	May be authorized; see section 2.16.2	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Helicopter Air Taxis	May be authorized; see section 2.16.2	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Not allowed; with exceptions consistent with section 2.12.3
Bus and Auto Tours	May be authorized; see section 2.16.2	Same as Intensive Management	Not applicable	Not applicable	Not applicable
Other Commercial Activities					
Commercial Filming, Videotaping, and Audiotaping	May be authorized; see section 2.16.6	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Grazing	Not allowed; see sections 2.16 and 2.16.7	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Agriculture (Commercial)	Not allowed; see sections 2.16 and 2.16.7	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Commercial Fishery Support Facilities At or below 1979 levels.	Allowed; see section 2.16.3	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management.	Same as Intensive Management

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
				See also section 1.4	
Commercial Fishery Support Facilities Above 1979 levels.	May be authorized; see section 2.16.3	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 1.4	Not allowed
Seafood Processing	Not allowed; see section 2.16.3	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management
Aquaculture and Mariculture Support Facilities	May be authorized; see section 2.16.3	Not allowed	Same as Moderate Management	Same as Moderate Management	Same as Moderate Management
Commercial Timber and Firewood Harvest	May be authorized; see section 2.16.4	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management. See also section 1.4	Not allowed
Commercial Gathering of Other Refuge Resources	May be authorized; see section 2.16.5	Same as Intensive Management	Not allowed	Same as Minimal Management	Same as Minimal Management
Transportation and Utility Systems Includes transmission lines, pipelines, telephone and electrical power lines, oil and gas pipelines, communication systems, roads, airstrips, and other necessary related facilities. Does not include facilities associated with on-refuge oil and gas development.	May be authorized; see section 2.12.7	Same as Intensive Management	<u>May be authorized; would require plan amendment; Not allowed; except applications must be considered,</u> see section 2.12.7	Same as Intensive Management	<u>Must be authorized by Congress; see section 2.12.7</u> Same as Minimal Management
Navigation Aids and Other Facilities Includes air and water navigation aids and related facilities, communication sites and related facilities, facilities for national defense purposes and related air/water navigation aids, and facilities for weather, climate, and fisheries research and monitoring; includes both private and government facilities.	Existing and new facilities allowed; see section 2.12.11	Same as Intensive Management	Same as Intensive Management. See also section 1.3	Same as Intensive Management. See also section 1.4	Same as Intensive Management. See also section 1.5
Major Hydroelectric Power Development Hydroelectric dams creating a change in streamflow with an elevation change and reservoir behind the dam.	Not allowed; see section 2.16.7	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management	Same as Intensive Management

ACTIVITY	INTENSIVE MANAGEMENT	MODERATE MANAGEMENT	MINIMAL MANAGEMENT	MANAGEMENT of WILD RIVERS (4)	MANAGEMENT of WILDERNESS
Small Hydroelectric Power Development Hydroelectric generation by low-head or instream structures that do not change the flow of the river.	May be authorized; consistent with section 2.16.7	Same as Intensive Management	Not Allowed	Same as Minimal Management	Same as Minimal Management

4. References

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5. Abbreviations and Acronyms Used

ANCSA	Alaska Native Claims Settlement Act
BLM/AFS	Bureau of Land Management/Alaska Fire Service
IACUC	Institutional Animal Care and Use Committee
NEPA	National Environmental Policy Act
WIP	Wildlife Inventory and Monitoring Plan